Mark E. Peterson. Improving Recovery for Libraries That Have Been Hit by Disaster. A Master's Paper for the M.S. in L.S. degree. November, 2008. 46 pages. Advisor: Robert Losee.

This study analyzes research into cases where various types of libraries around the world were hit by disaster and were then able to restore services to their patrons, in order to determine the effect of appeals to outside agencies for help on the amount of funding obtained and the time that it took to restore library services.

Of the sixty cases examined, thirty-six had full records that could be examined tracking the fate of library services from catastrophe to recovery. This research shows that all libraries need to consider methods for handling outside help and donations in their disaster planning. Appeals to outside interest groups and international library agencies in brought in additional funds and appear to have shortened the time to the full recovery of services, even for libraries with considerable insurance coverage. Only in cases of wartime destruction is outside help essential for the survival of libraries.

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IMPROVING RECOVERY FOR LIBRARIES THAT HAVE BEEN HIT BY
DISASTER.

by
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Approved by

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Introduction

An earthquake struck Kashmir on October 8, 2005, killing over 50,000 people. At the one

Kashmir library in the Pakistan side of the region, the Khurshid National Library in

Muzaffarabad, the ground split open underneath the building, and it collapsed into the

crevasse.[1] The destruction scattered all 60,000 volumes of the library. In the nights that

followed, people gathered up the books and began burning them in great bonfires for

warmth. Before the army stepped in three days later to save the books, over half of them

had been completely destroyed.[2] How can the library be rebuilt after such a catastrophe?

Can anyone even begin the work of returning some sort of library services to the local

people when they are in the midst of so much suffering and destruction, especially with

the international tensions surrounding Kashmir?

The questions about this desperate situation bring up an important issue that many

libraries around the world have to consider, whether there is anyone who can really help

when disaster has struck. A very different example illustrates the complexity of this

problem. In September, 2003, the Muncie Public Library in Indiana discovered that a

broken flourescent light had sprayed mercury over the public computer stations. The

resulting clean up shut down the library for almost three months, since carpet, furniture,

and books had to be treated as hazardous material. When the insurance company would

not cover the costs, the library had to turn to the Environmental Protection Agency. Even

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[1] *Library Journal*, "A Library Lost," 15 November 2005, available from
http://www.libraryjournal.com/article/CA6282621.html; Internet; accessed 1 November 2008.
[2] Munir Ahmad, The Associated Press, "Survivors in Kashmir Burned Books for Fires," *Charleston Gazette*, 12 December 2005, sec. C, p. 4.

then, this event decimated the library budget for that year since it had to cover $100,000 of the costs.[3] Knowing where to turn proved essential to the very financial survival of this library, though obviously the librarians would have appreciated even more help. This study looks at library disasters like these to determine how libraries should handle outside aid, most importantly when they need to turn to international agencies. Understanding the ways that libraries can obtain needed aid will help perfect disaster planning models currently in place and improve library recovery.

Libraries in general are very fragile. We can see this very clearly in their history. The buildings, collections, and data that make up libraries around the world have suffered tremendous damage in many catastrophic events throughout the centuries, though especially in the last hundred years. National libraries, ancient depositories, research universities, and many other important collections have been lost instantly because of sudden disasters. As we move forward into the coming years, we can expect that this pattern will continue; the world will lose treasured libraries and their books because of war and catastrophe. There may even be new dangers on the horizon as there could be more intense, more frequent natural disasters ahead as the climate continues to change.

Modern libraries have responded in many different ways to these damages. A survey of the literature reveals that while there have been some great triumphs in rebuilding, there have also been many instances when library services were never restored to their previous condition. The degree of the initial damage does not appear to be the deciding factor in whether libraries are rebuilt, however. Some libraries just do not have the same type of patrons or resources that they once did, so the decision is made not

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[3] *Library Journal*, "Mercury Spill Clean Up Absorbs Muncie Library's Budget," 30 October 2003, http://www.libraryjournal.com/article/CA331523.html; Internet; accessed on 2 November 2008.

to rebuild them. More often, libraries do not recover their former services after disastrous losses because they suffer from a lack of available funds to pay for needed recovery efforts. Of course, damaged libraries struggle to find money in their normal budgets to pay for the unexpected losses which come with sudden catastrophe, often these funds simply do not exist. The question is really one of finding additional funds to make recovery possible. In rare cases, the money is not the issue so much as the irreplaceable nature of what was lost, meaning that one can never really say a library was brought to the same level of service it once had because the unique items that were destroyed can never be replaced.

The obvious source for libraries to turn in situations of financial loss would be insurance companies and federal governments. However, these do not always provide full coverage for lost equipment, shelving, and furniture, as well as the effort to replace information resources that have been damaged. And in many poor countries the funds available for rebuilding from insurance or government are just not adequate. Perhaps more importantly for libraries, these types of monies tend to take a long time to arrive, too long for institutions working to return their services for patrons as quickly as possible. In the midst of the wider disasters, governments often have to worry about other concerns, so for immediate help librarians must turn to private donors, professional associations, and outside agencies. Libraries have had mixed success in getting the money they need from these sources. Even with concerted effort, outside funds often total less than ten percent of the money that comes in to help rebuild library services after disasters. This assistance can still be essential, however, because of the speed with which outside donors can get help to libraries struggling to rebuild.

In those cases where the unique nature of the items lost creates a greater hurdle than money considerations, outside help can be more important than ever, due to the difficulty in finding replacement items. Libraries with rare materials often have to turn to other specialty libraries and experts in the field to ask for donations to replace lost collections. The expense of cleaning resources affected by mud, smoke, or water also demands more funds than governments are willing to pay. Only the people who know the value of the works can understand why the expensive processes of restoration are necessary or worthwhile.

Fortunately, there are a few groups that seek specifically to protect the world's libraries, and they often interpret that mission to include efforts to rebuild the services and resources of damaged libraries. Regretfully, none of these groups has the budget to be a major force for ensuring reconstruction, so it is unclear just how much help they can provide in cases of disaster. There is also the concern that the work of these agencies lets administrators off the hook, so the end result is less government money than if there had been no pledges of outside help. Still, when the authorities have no help to give and budgets prove inadequate in the immediate face of disaster, individual libraries around the world have turned to their supporters in professional associations, the UN, and other cultural non-government organizations (NGOs) around the world for help. In numerous cases, these libraries have only been able to rebuild their services through the combination of tremendous local effort and essential international aid.

One might ask how libraries can ever successfully recover from emergency situations with all of these hurdles. Of course, the most important thing, as many librarians know, is to have a comprehensive disaster plan prepared beforehand: one that

addresses how to respond in a wide range of emergencies. Disaster preparation also means anticipating what to do in the weeks and months afterwards, so that services can be recovered and the library can be put back to work. Many times, too, catastrophes come that no one expected, so plans need to be made to cater to recovery from situations that overwhelm all preparation. In either situation – planning for problems or recovering from the unexpected – library managers need to understand what help they are going to need and know where best to go to get it.

This study looks at the problems that libraries face trying to recover from sudden disasters and compares librarian's responses to determine which reactions serve library patrons best – what puts the library back into service most successfully. The main focus here is specifically on events when libraries have needed to seek help beyond that available from their government or insurance provider. A secondary concern of this study is the effectiveness of general appeals for help. It will look at the ways that libraries can look for assistance to determine which is best for specific needs. There has been little discussion in the research literature about such appeals and how important they have been in restoring library services. Since many discussions of what to do in cases of library disaster mention the need to handle publicity effectively and to coordinate efforts with international agencies, librarians should know whether these efforts are worthwhile. And so, the analysis of this paper will look especially closely at the effect of appeals to international organizations for help to restore library services.

What this research has found is that appeals to outside groups do not limit the funds that ultimately come to libraries seeking aid after catastrophes, nor do they keep governments from playing their role in these situations. Furthermore, even though

evidence shows that direct donations from various aid groups fall far short of library

needs in many cases, the calls for international help that these associations put out do end

up bringing in money to individual libraries that they would not receive otherwise. This is

because of the publicity that these calls provide and the strength they gain by being tied

to the reputation of aid groups. More importantly, the involvement of international groups

brings volunteers, money, and books to suffering libraries faster than any other method.

A comparison among the different responses to libraries' needs shows that in some

situations outside help proves to be essential to getting things on track quickly.

The Norwich Central Library burned during a catastrophic fire in 1994. This had

been the first public library built in Britain after the Second World War. Along with a

very strong local history collection, the library had contained the 2d Air Division

Memorial Library that had been started by American veterans stationed nearby during the

war.[4] In response to the fire, ways were sought to build a grander replacement for the

city. After discovering that many of the oldest documents of city survived, the librarians

appealed to libraries, local people, and international veterans' groups for replacement

items for the memorial library to rebuild that collection. They then worked with the city

to find additional funding for the new construction. In the end, the city's Forum building

became the Millenium Project for eastern England. The $100 million building became a

central gathering point of the community. With their quick response and innovative

vision, the librarians of Norwich created a model recovery of library services after what

had seemed to be complete destruction.

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[4] Hilary Hammond, "Norfolk and Norwich Central Library: The Emerging Phoenix," *New Library World* 97, no. 6, 1996.
The Forum, "About the Forum Building," available from http://www.theforumnorfolk.com/; Internet; accessed on October 6, 2008.

Literature Review

Much of the research literature on library disasters focuses on the unique experience of one institution that has been damaged by some sort of catastrophe. The discussion of events and responses in the one case often leads into either an appeal for help or advice on what librarians should do in similar cases. Though these articles offer dramatic reading, with stories of heroic library staff reacting to destroyed books and disrupted services, few generalizations are made about specific practices. Common advice is that every library needs to have a comprehensive disaster plan. In many cases, it is clear that proper planning has made the difference in being able to restore library services. What this literature also shows is that in some circumstances outside help has proven essential for libraries to recover after disaster. The best way to get that help needs more focused study, but a comparison of various case studies and work in other fields suggest how librarians can identify when help is necessary and the best types of groups to approach for needed aid.

Studies of the international catastrophes affecting libraries in the past ten years have looked at places as far apart as Aceh and Germany. Of course, much of the recent work in America on this topic has studied the libraries harmed by Hurricanes Katrina and Rita. Jamie Ellis, for example, a librarian at the Biloxi Public Library, wrote of the efforts to protect a research collection in the face of a major hurricane.[5] Ellis focused on the immediate actions after the storm hit, but did comment on the importance of organizing volunteers, applications for funding, and interactions with the media. All of these proved important in returning the library to being a functioning center for the community.

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[5] Jamie Ellis, "Lessons Learned: The Recovery of a Research Collection After Hurricane Katrina," *Collection Building,* 26, no. 4 (2007): 108-111.

Kate Nevins and Sandra Nyberg examined the specific funded efforts of the Southeastern Library Network to help libraries rebound from the effects of the hurricanes.[6] This article also looked at the immediate efforts to rebuild libraries, though in this case the focus is on the different organizations that sought to fund the return of service, such as the Bill & Melinda Gates Foundation. The libraries in the area, especially public libraries, proved essential to people getting their lives in order after the disaster, so the efforts of these groups helped to get things back on track for the entire region. Charitable foundations also pledged long-term support, making up for expected shortfalls from government funding. In all, the article identified that immediate funding proved to be the greatest need of libraries that had suffered the worst effects of the storms. It also saw coordinated work with international aid organizations and other outside groups as the most productive response to the situation.

In another discussion of Hurricane Katrina, Kay L. Wall found that the most important lesson from the experience is the need to be prepared for a loss of communications with staff in the event of catastrophic disaster.[7] In general, staff faced a number of challenges trying to keep libraries open. Significantly, Wall stressed the need to apply to private foundations to replace collections because local budgets and federal assistance would not be adequate in many cases. This work also contained some general advice, such as the need to organize the labor of willing volunteers and the fact that librarians needed to determine right away which collections would need to be saved and what could be replaced.

[6] Kate Nevins and Sandra Nyberg, "SOLINET's Gulf Coast Libraries Recovery Projects for Public and Academic Libraries," *Public Library Quarterly,* 25, No. 3-4 (2006): 215-223.
[7] Kay L. Wall, "Lessons Learned from Katrina: What Really Matters in a Disaster," *Public Library Quarterly,* 25, no. 3-4 (2006): 189-198.

A more general discussion of emergency preparedness is Randy Silverman's work on what not to do during disaster recovery.[8] Silverman stressed the need for managers to handle their human resources effectively and to deal with contractors so they do not take advantage of the disaster. However, he also discussed the ways that the media must be handled correctly to aid in the overall recovery efforts and not to handicap the work of the library. Good media relations are always necessary to maintain public support and can make the difference in whether or not a library recovers. Like all of these authors, Silverman stressed the need to have a good disaster plan in place and, more importantly, a willingness to deal with the situations not covered by the plan.

A wide range of work, some of it from other fields of research, looks at the broader topic of how international aid comes into play during various emergencies. For the issue of library needs after disasters, the first place to turn is the work on the library organizations themselves. Much has been written on groups like the International Federation of Library Associations (IFLA) and the International Committee of the Blue Shield, which seeks to protect cultural institutions. Peter Lor's article on IFLA stressed the group's role as an international advocate for libraries.[9] Even though they have limited resources, IFLA works to respond to emergencies around the world. They do this, for the most part, by calling for other groups and individuals to join in efforts to help libraries respond to the immediate problems of disaster, whatever the cause. IFLA works as a conduit of information, lending its voice to appeals for help from the international community.

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[8] Randy Silverman, "The Seven Deadly Sins of Disaster Recovery," *Public Library Quarterly,* 25, no. 3-4 (2006): 31-46.
[9] Peter Johann Lor, "IFLA: Looking to the Future." *Library Management* 27, no. 1 (2006): 38-47.

There has also been more general work done on issues surrounding the loss of culture and what that means for people who share that culture, as well as all of humanity. This is important for libraries because of the general concern for their security as cultural treasures. Their promotion as such by groups like IFLA and UNESCO plays a role in securing aid. Stuart Kirsch began an influential discussion of the problems of determing a legal value for culture, especially for indigenous peoples who have lost unique places where they formed a shared heritage.[10] Though the monetary worth can be difficult to establish, he argued that cultural sites hold unique value for people, and they deserve special protection. Their importance also means that special attention should be paid to the efforts involved with recovering culture that has been lost for whatever reason. The discussion on the meaning of unique culture has since gone beyond the concerns that anthropologists have for the damage and loss of traditional lands. In fact, all ethnic culture needs to be preserved, as the losses of the 20th century have shown.[11] When international groups work to protect libraries, they are protecting something that has value for everyone, and librarians try to stress that when they appeal for help.

The work that cultural protection organizations do in the context of emergencies has been the subject of few direct studies. In order to get a full picture of how such NGOs respond to local need, it was necessary to consult a wide body of work on disasters and international aid organizations, including works on public policy, disaster management, and international relations. Much of this literature stressed the need to include

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[10] Stuart Kirsch, "Environmental Disaster, 'Culture Loss,' and the Law," *Current Anthropology,* 42, no. 2 (2001): 167-198.
[11] See Jane Aiken, "Preparing for a National Emergency: The Committee on Conservation of Cultural Resources, 1939-1944," *The Library Quarterly* (Chicago), 77, no. 3 (2007): 257-285 for a lengthy examination of the efforts that the US federal government took to protect the treasures of American culture in libraries during the Second World War.

management of volunteers and donations in any disaster plan. A number of articles discussed the complexities of making that management effective in actual disasters.[12] All of this work shows not only that donations will come of their own accord and must be handled correctly, but also that the money that comes in quickly from concerned individuals and groups can end up being very important for recovery efforts.

One of the creators of Doctors Without Borders, Peter Aeberhard, noted that the influx of humanitarian help after an earthquake can be overwhelming, acting as a second disaster. However, while the media coverage can add to the problem of too many people on the scene, it can also effectively direct volunteers and donors to the most important needs of the affected community.[13] This suggests that disaster agencies, including library organizations, would benefit from a greater knowledge of how to handle that coverage to their benefit. Certainly libraries should know what to do in the event of an emergency to secure the most funds as quickly as possible without ignoring the potential of international donations.

Adam F. Simon wrote years ago about how much television coverage of earthquakes affects the private donations that come in to aid groups. This analysis looked at both the factors that encouraged the inital news coverage and the money that resulted

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[12] Erwin Blackstone, Andrew J. Buck, and Simon Hakim, "The Economics of Emergency Response," *Policy Sciences,* 40, no. 4 (2007): 313-334; Amy K. Donahue, and Sean O'Keefe, "Universal Lessons from Unique Events: Perspectives from Columbia and Katrina," *Public Administration Review,* 67, (2007): 77-81; Franz Hackl and Gerald Josef Pruckner, "Demand and Supply of Emergency Help: An Economic Analysis of Red Cross Services," *Health Policy,* (Amsterdam) 77, no. 3 (2006): 326-338; Jennifer Rubenstein, "Distribution and Emergency," *The Journal of Political Philosophy,* 15, no. 3 (2007): 296-320; Steven Stehr, "The Political Economy of Urban Disaster Assistance," *Urban Affairs Review* (Thousand Oaks, Calif.), 41, no. 4 (2006): 492-500;

[13] Patrick Aeberhard, "Expectations are Changing for Disaster Relief," *Nonprofit and Voluntary Sector Quarterly,* 37, no. 1 suppl (2008): 19S.

from it.[14] He found that "the effect of the media on private contributions was statistically

significant and substantial."[15] The results of this study can be hard to interpret, however,

because of the circuitous relationships of the variables. Earthquakes had a smaller chance

of being covered the further they were from New York City, but this was offset by an

increase in coverage that was done for events that killed large numbers of people. Deadly

earthquakes could be expected to bring greater donations to groups like the Red Cross

even without the news reports. And no clear relationship between donations and distance

was established separate from the media effect. Still, this article shows the need for a

greater understanding of what effect the media can have on donations and suggests that

libraries would receive more outside help simply by getting more media attention.

Often it is not the news that announces the destruction of libraries, but rather the

international professional groups or cultural agencies. Librarians need to know more

about how to work with these groups to put out the call for funds. Gloria Simo and

Angela L. Bies wrote of the ways that NGOs work with each other and local groups to

aid in disaster response, especially in the context of Hurrican Katrina relief.[16] They found

that managers handled collaboration best when they had considered it beforehand as part

of their disaster planning. It also helped for groups to have firm, negotiated agreements

that highlighted what the different participants could do well. The authors stressed that

the handling of individual volunteers and donors could be one of the most challenging

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[14] Adam F. Smith, "Television News and International Earthquake Relief," *Journal of Communications,* 47, no. 3 (1997): 82-93.
[15] Smith, "Television News," 91.
[16] Gloria Simo and Angela L. Bies, "The Role of Nonprofits in Disaster Response: An Expanded Model of Cross-Sector Collaboration," *Public Administration Review,* 67, (2007): 125-142.

aspects of disaster response, requiring well thought out policies. Effective handling of the good wishes of others could put them to use to provide great help for the groups in need.

Other writers have also argued that NGOs can be most effective in disaster response when they work to organize effective collaborations, even though networks are not typical of NGO behavior in normal situations.[17] Several articles by Naim Kapacu showed that collaboration makes for better disaster preparation and response, including the important work of handling the media and encouraging private donations.[18] The media can hinder the work of responders because of its ability to shape perceptions and even direct priorities, but media can also "serve as a tool that aids disaster response, as evidenced by the public's contribution of USD 1.4 billion after a national television appeal following the events of 11 September 2001."[19] Librarians can effectively influence the power of the media by collaborating with NGOs that care about protecting cultural resources.

Since this study looks at the restoration of libary services, it was also necessary to consult some of the scholarship done on the issue of library services.[20] The purpose of this research was not to master the full debate over library services in the field, but rather

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[17] Patrick Kilby, "The Strength of Networks: The Local NGO Response to the Tsunami in India," *Disasters,* 32, no. 1 (2008): 120-130.

[18] Naim Kapucu, "Collaborative Emergency Management: Better Community Organising, Better Public Preparedness and Response," *Disasters,* 32, no. 2 (2008): 239-262, and "Non-Profit Response to Catastrophic Disasters." *Disaster Prevention and Management* 16, no. 4 (2007): 551-561. In Naim Kapucu and Montgomery Van Wart, "The Evolving Role of the Public Sector in Managing Catastrophic Disasters: Lessons Learned," *Administration & Society,* 38, no. 3 (2006): 279-308, the authors say that trust and cooperation are central to a strong disaster response, and that requires good communication among all agencies.

[19] Kapucu, "Collaborative Emergency Management," 256.

[20] John B. Harer and Bryan R. Cole, "The Importance of the Stakeholder in Performance Measurement: Critical Processes and Performance Measures for Assessing and Improving Academic Library Services and Programs," *College and Research Libraries,* 66, no. 33 (2005): 149-180; Roswitha Poll and Philip Payne, "Impact Measures for Libraries and Information Services," *Library Hi Tech,* 24, no. 4 (2006): 547-562; Xi Shi and Sarah Levy, "A Theory-guided Approach to Library Services Assessment," *College & Research Libraries,* 66, no. 33 (2005): 266-277.

to gain a clear sense of how scholars define the idea to make sure that this study measured significant changes. One thing that is clear from this reading is the complexity of determining levels of service and impact. A community library, for instance, might be considered back in service when local people can once again use it to access the internet. A special collection of rare books, on the other hand, might in some circumstances be considered out of service until it has managed to put together a respectable body of resources for expert researchers, along with the staff and space to access them. For the most part, librarians' own opinions on the status of their libraries has been used here to decide when they have recovered from the loss of services, but some general guidelines have been adopted from the field to check this determination.

Methodology & Analytical Techiques

In this study, the first variable to consider is disaster itself. The term "disaster" in here means any natural or man-made destruction of library resources that suddenly limits the ability of the library to continue its previous services. For buildings, this could mean that they are no longer safe for people to be in them; for collections it could be because more than 10% of the items have been damaged or made inaccessible. The disaster could also be that significant numbers of staff have been lost so that the work of the library cannot be done as it was before. Again, the fact that the library can no longer serve its patrons as it did makes it a disaster for this consideration.

To determine when library disasters have occured, news coverage, government reports, professional association publications, and announcements have been read to find statements indicating that a library can no longer offer the same services after a single reported event. The events could be individual military attacks on a particular region or

town, but mostly they are fires, floods, storms, and earthquakes that cause huge damages to buildings and infrastructure. The point is to study specific library disasters for comparison. In cases where different libraries have been affected by the same event, only one library has been considered for that event.

A small number of groups have responded in the past to help libraries. "International Library Agencies" is this study refers to the specific groups that have been important for the cases under consideration: UNESCO, the International Federation of Library Associations (IFLA), and the American Library Association (ALA). Other outside agencies have come to the aid of some of the libraries under consideration, but these three are the only library organizations that were active in the cases considered in this research. The Canadian Jewish Congress and the Sikh Cultural Society, along with others, came to the rescue in certain cases, but they clearly have specific concerns beyond the general welfare of libraries. For this study, any particular groups that libraries appealed to will be discussed, but there is a difference made in the analysis between the effectiveness of help from International Library Associations and groups with other affiliations.

Many of the library disasters in this study were first discovered through *Library Journal*, UNESCO's Memory of the World project, or ALA's *American Libraries*. However, a library had to appeal to an International Library Association to publish its needs for any mention to be considered a case where the library has asked for international help. In many other situations, the record just refers to local news reports that mention a library in trouble. Whenever an agency, international or not, issues any sort of formal statement in the news, in professional library journals, or in their own

publications or web sites that calls for help for libraries that suffered from a disaster, that will be considered a response. There is no need for the reports to mention any particular aid, only to call for the world to recognize that a library needs help. This study compares only response versus non-response to understand the role that the responses of agencies has in bringing in funds to libraries that have suffered losses.

Initially, sixty cases of library disaster were researched to understand the ways that libraries have responded. The goal was to track the amount of time back to service and the money that ultimately went toward library restoration. Unfortunately, all of the necessary records for these sixty cases could not be obtained. Some comments about patterns of service recovery have been based on reports from all of these libraries. True comparative analysis, however, could only be done on the thirty-six disasters with fully available records.

All funds that came to a library for disaster recovery, according to news reports, and library statements, have been considered for comparison. Statements from International Library Associations on the success of their efforts have not been used for final comparison of funds. These values have been evaluated as dollar amounts. In cases where the amounts were announced in a different currency, the dollar value has been calculated by the exchange rates for the year of the announcement according to the information that is found in the Economic History site, "Measuringworth" www.measuringworth.org.

The fates of libraries after destruction have differed a great deal. Obviously, excluding cases where libraries were unable to come back into service brings some slant to the analysis. There were also many instances where libraries were shut down

completely for years after disaster, only to be rebuilt completely with millions of dollars in funds. It can be difficult to discern a lesson by comparing a total renovation to those cases where libraries had to get some funding to clean up the damp carpet. The issue really is the lack of cases available at this point. Further research will need to look at a larger number of affected libraries to be able to make more exact comparisons of the different cirumstances of library disasters. Here the shortcomings of the pool of cases was overcome by more direct analysis of individual situations, including some situations when the financial value of donated books could not be determined, but their importance was clearly vital to the survival of library collections.

Obviously, the nature of the reports available from the different libraries makes it difficult to be certain that events that have made it into any public record are the only important ones that have affected libraries. Without formal budget reports in every case, it is especially uncertain that the funds in the public record are the only ones that came to the libraries in the study. This creates a problem in understanding how the cases relate to each other. To provide another element of comparison between the library disasters, the time between the initial catastrophe and the return to service has been examined in every case, in order to have a clearer picture of how they they compare with each other. An understanding of the time it took to return to service certainly shows the benefits of outside help.

Results & Discussion

Several trends emerge immediately from an analysis of the cases of library disasters. The first is the difference between American institutions and many others around the world in emergency situations. Other important things to note about these libraries is the impact of

major rebuilding on disaster planning, the unique needs of special collections, and the complicated role that book donations play in rebuilding efforts. To examine the meaning to be gained from studying these example cases, the lessons to be learned, it will be necessary to tease out some specific trends from the overall picture of these events.

In looking at the situation for American libraries, the most obvious thing to note from the outset is how many libraries in the U.S. have comprehensive insurance coverage compared to the rest of the world. For instance, the public library in Tarrant, Alabama suffered a devastating fire in 2003 that destroyed over half of the collection. The first response of administrators was to hope that insurance money would allow the library to rebuild, even though the library had just raised the money for a major renovation before the fire.[21] Though insurance payments can be huge, far beyond initial damage estimates, as libraries realize just how much work will be involved in cleaning up after fire or flood, they seldom allow rebuilding to go beyond the restoration of the library as it had been before. In many cases, libraries have used incidents of destruction as a chance to rebuild bigger and better, but when the insurance companies only have an interest in covering losses libraries are left with a clear choice. They can stick with taking the money to cover losses, which would be effortless, or try to gain additional funds for greater rebuilding.

Looking at several cases of American libraries that suffered from disasters, one sees that very often these libraries got exactly what they had lost from the insurance

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[21] *American Libraries*, "Half of Tarrant, Alabama, PL Collection Lost to Fire," 26 November 2003, available from http://www.ala.org/ala/alonline/currentnews/newsarchive/2003/alnov2003/halftarrant.cfm; Internet; accessed 15 October 2008.

companies.[22] This could mean massive rebuilding campaigns such as at Northridge where the library had to be completely rebuilt. However, even when the cleaning of surviving books is covered, this type of recovery can leave libraries with a difficult time replacing the books, because only an average cost value for all the lost books has been paid for. Librarians have to go out and find actual replacement books on the market when some of the items that used to be in the colection have become rare. This means that the old books are replaced with a smaller number of new books. Nor do insurance settlements always cover the costs of acquiring and cataloging those new books, further reducing the effective return to former services.

One effect of the heavy insurance coverage that so many American libraries carry, certainly for public libraries, is that there is often little attempt to take advantage of the goodwill that makes so many volunteers and donations available after disasters. Librarians know that the insurance money will eventually come, so they do not try find any funds. We have seen that this can cause later problems, because of the eventual shortcomings of the final coverage. Looking at the small public libraries in our disaster cases, appeals were rarely ever made to anyone beyond the local neighborhood. Even then, librarians often only requested local help in organizing a quick return to service. The clearest example of this was the Plainfield Public Library in Illinois, where there was no clear request for aid from the wider world, though the dramatic stories of the tornado that destroyed the library in 1990 brought offers from as far away as the Soviet Union.[23]

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[22] This includes damages ranging from as small as $70,000 in the case of the Highland Elementary School Library, to $500,000 for both the Burlingame Public Libray and the Jones Library of Pierce, MO, even as large as the $22 million for the central library at California State University that was damaged in the Northridge Earthquake, among others. See Figure 1.

[23] Plainfield Public Library District, "Tornado History," available from http://www.plainfield.lib.il.us/general/tornadohistory.asp; Internet; accessed 14 October 2008.

Instead of making use of this help, the library opened up a replacement library in a town storefront very quickly. Then local volunteers came one weekend to organize the books that needed to go for cleaning, which left the librarians to spend months working on the remaining shipments.

The Plainfield Library shows another problem of library insurance in general. The final money from any claim takes a very long time to come in, sometimes years. In this case, it took over a year for the library to be able to rebuild and return all the books to the shelves. The general pattern, in fact, when public libraries suffer significant damage is a rush to restore some sort of service. In a number of these cases, the library was then able to serve patrons within a week. The reliance on insurance, however, means that often more than a year goes by before the library can be considered restored to what it had been before, even when the damage was minimal. When the costs of cleaning books and facilities have been much more than anyone expected, insurance and government funds have generally been enough, but the time it takes to reach a final settlement is even longer, especially when FEMA is involved.

Small losses make libraries even more reluctant to do anything other than wait for insurance to cover the losses, especially when the library is able to quickly reopen its doors. This pattern tends to strain the short term budget, because of the expenses of dealing with the clean up and claim preparation. If librarians what to restore the services that were available before, they run into the problems in getting the new collection to truly equal what had been in place before the loss when dealing with insurance coverage. In many cases, they would be better off appealing to budget planners for special

consideration and to the wider public for donations in order to get the library to the quality it had before the disaster.

The exceptions to the pattern of long waits for the money to repair public libraries reflect how rigid the normal pattern is. Hurricane Katrina, of course, decimated library services in southern Louisiana and Mississippi in 2005. Many library districts still do not offer the level of service they had before. The world responded with books, volunteers, and money. The ALA organised adoption arrangements in which public libraries around the country helped specific southern libraries with getting back in shape by collecting donations locally and even sending librarians down to help. The damaged libraries still have found that insurance, FEMA, and local budgets are the most important sources of funds for reconstruction, but the degree of the destruction and the general desire to help the communities hit by the hurricane brought the attention of the world. Faced with the onslaught of aid, the libraries have had to stay in control of these efforts in order to direct the help to the right places, whether it is boxes full of largely useless books or expert assistance.

A second exception to the public library pattern was the disastrous fire at the Los Angeles Public Library in 1986, which destroyed priceless collections and a landmark building. After this event, the mayor set up a save-the-books fund, which ended up raising ten million dollars for rebuilding the collection.[24] The city had self-insured its library buildings and so had trouble raising funds for an ambitious rebuilding and expansion plan for the central library after the fire. Therefore, Los Angeles turned to very public appeals for help which not only brought in additional donations but also helped

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[24] United Press International, "Hundreds Join Walk for Library – Event Raises Funds to Replace Books," *Daily News of Los Angeles,* 7 December 1986. p. 6.

direct those donations to the library's needs. Some of the other public libraries that have suffered disasters in both the US and England have been rebuilt with better facilities than existed before, but in these cases the local government has combined library services with some other local service such as a park service offices or community centers,[25] combining government and insurance funds to create a new multi-purpose building. Here again, though little effort is made to look for additional help.

Would looking to others for aid really help libraries recover more substanially or more quickly than they would otherwise? Certainly, librarians are right to think that managing appeals and organizing donations would take a great deal of additional effort on their part. The story of the Central Library in Los Angeles suggests that the restored library would benefit enough from formal appeals for them to be worthwhile. Many large academic libraries have suffered significant losses in recent years. Some of these, unlike CSU Northridge, set up special funds afterwards as part of the university foundation, where people can go to donate money specifically for the rebuilding of the library and its collection. All of the American and British academic cases ended up with the new library costing more than initially expected, with grander new facilities. At CSU, the money for extensive rebuilding came from FEMA and insurance, but in other cases a significant portion of the necessary funds came from donations.

Of course, academic libraries are similar to the Los Angeles case in that they have unique, hard to replace collections, beloved by many of their users. So, these libraries have been similar to public libraries in that there is a rush to return service to users who need it as quickly as possible, but academic libraries in general have an even bigger task of getting their unique collections put back together. When you add this to the time that

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[25] *Akron Beacon Journal*,"Groundbreaking for Learning Area," 22 August 2005. p. B4.

insurance claims take and the redesign process, putting things truly back on track could take many years. Universities also have donation structures already in place, so it takes little effort for them to pursue funding for specific efforts. Many university libraries have very clear policies and practices already in place for handling book donations to their collections, too, as opposed to public libraries that regularly send off donated books to be sold. Academic libraries know the benefits to be gained by turning to their supporters in times of disaster. What they do not do in many disaster situations is make focused requests from their friends or the world at large for specific items to replace those that have been lost. Instead, they tend to focus on purchases and exchanges to find replacements in the years after the losses.

Instances of disaster hitting special libraries in America and Canada suggest that academic libraries would benefit from more specific requests for aid. The Sosnick Library of Congregation B'nai Israel in Sacramento was hit by arson in 1999. After worldwide condemnation of the attack and calls for aid, the synagogue rebuilt a fantastic new library within three years. One of the great features of the rebuilding effort is the many rare books that came in as donations from far and wide.[26] A similar series of events occured after the firebombing of Montreal's United Talmud Torah School, but also after the fire that destroyed the Sikh Culture Society in New York. In these cases, world religious groups clearly had a special concern for rebuilding the affected libraries. However, the floods of Iowa in 2008 completely overwhelmed the National Czech and Slovak Museum and Library, and they also have received a great deal of help from government sources but also from many different people. Of course, Czech and Slovak

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[26] Congregation B'nai Israel, "Sosnick Library," available from http://www.bnais.com/library.cfm; Internet; accessed on 5 October 2008.

groups are a big part of this, just as many Jews responded to attacks on Jewish libraries, but in all of these situations various other people responded to the need for library restoration. Libraries such as these make little mention of receiving many books that they cannot use, such as public libraries often due, which suggests that the people who respond to these disasters know what treasures would benefit the collections.

The experiences of these specialized libraries indicate that academic libraries could make more use of the resources and the goodwill that are available for their libraries. To improve their recovery then, universities could turn to both the specialists and students who use their collections but also the other libraries that hold similar items to what had been lost to disaster. In 2002, the Cybernetics Library at Edinburgh University burned in a dramatic fire. The unique, world class collection that the School of Informatics had built up over thirty years could not totally rebuilt, and in fact the informatics collection would eventually be folded into the library's main collection. However, in the process of recovering from the fire, the librarians at Edinburgh were able to collect important donations of journals and dissertations from a number of collections and individuals.[27] They did this by direct appeals to the people who would mourn the loss of the library and those who would have the same sort of specific resources. Clearly the universities at Hawaii, New Mexico, Glasgow, and Northeastern Illinois could benefit from public requests for specific types of help, including expert help on filing claims, purchasing, and cataloging.

It is less clear if the experiences of these unique libraries has a similar lesson for public or school libraries. Without so much in the way of special collections, most public

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[27] CILIP, "Recovering from disaster - the loss of Edinburgh's AI Library," available from http://www.cilip.org.uk/publications/updatemagazine/archive/archive2005/march/battersbymarch05.htm; Internet; accessed on October 2, 2008.

libraries can update their books by just purchasing new ones unlike the situation with the central branch in Los Angeles. Even if that means that a public collection will be smaller in the short term, sometimes the restoration of the library after disaster involves an improved, though smaller, collection. One could say that public libraries do just fine by calling the insurance company and filing a claim, waiting for the time when the replacement of books will fit into the budget, since many libraries have been successfully rebuilt this way. There is a small risk in the current climate of shrinking budgets and consolidation that the disaster will be used as an excuse to keep branches closed as appears to be happening after Hurricane Katrina and flood disasters across the country from New Hampshire to West Virginia to Iowa. For most public libraries, though, the question is really whether the response to disaster could be improved by looking to new forms of help by appealing to the wider world. In most cases, public libraries need to pay more attention to whether the efforts of directing outside help will bring in additional resources.

Many school libraries were included in the initial sixty libraries that were considered for this study, however, few records or statements could be found on how the libraries fared in the final rebuilding process. In most cases, indications were that the school budget and insurance alone were used to rebuild the facilities and the collections, but few public statements of how much that finally cost could be found. Like universities and public libraries, school libraries need to be put back into service very quickly after any disruption, and parents as well as students form a pool of people who can help get things on track as quickly as possible. School libraries also have many well wishers in society, along with the funds from insurance and school districts, which allows many of

these libraries to recover fully from disaster. Of the cases that have been considered, the clearest lesson for school libraries is that they need to understand the power of people's desire to help when libraries have been completely destroyed, especially in the fairly common cases of arson. Working with media and controlling the flow of aid in labor, funds, and books needs to be handled well for schools to be able to improve their recovery from library disasters.

The analysis so far has focused on American libraries, with a few British and Canadian examples. International libraries face many of the same problems when dealing with disasters. However, they rarely have the same level of insurance or even government support that American libraries of all sorts enjoy. Many libraries around the world also know that they can get powerful help from richer countries if only the need can be expressed effectively. The need for aid must fight against the tendency for foreign disasters to be announced in other nations as just exotic stories that do not need full consideration. Remember too that the study on earthquakes and media coverage showed that the distance from disasters tends to limit the interest of people in donating help of any kind. Unfortunately, this study suffered from the fact that foreign records have been harder to track, so that it is difficult to follow all of the story from disaster to recovery of library services in every case.

For instance, the Loreto College in Kolkata, India suffered from an attack of neighboring monkeys in 2002, which destroyed 6,000 books, 90% of the collection.[28] It is clear that the value of the damaged books was considerable for the college. However, all

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[28] *American Libraries*, "Monkeys Chew Up College Library in East India," 8 April 2002, available from http://www.ala.org/ala/alonline/currentnews/newsarchive/2002/april2002/monkeyschewup.cfm; Internet; accessed on 18 October 2008.

that can be said about the efforts to respond to this event is that the college opened for classes the next semester, and that they had a functioning library the following year, along with an agreement with forest managers to trap any further monkeys coming on campus. Financial considerations cannot be tracked through the whole story. And, of course, the purpose of publicizing this story in the various magazines around the world has little to do with gaining help for the library.

Many other library disasters that make it into the international record have been caused by the disasters of war that remain very distant from the experience of people in many wealthier countries. These libraries attract attention for a number of reasons, but a major consideration for the wider world is the fact that groups such as UNESCO and the Committee of the Blue Shield see protection of the world's cultural heritage as part of their special mission. This study looked at many war catastrophes that were announced publicly by such groups. In these situations, the role of International Library Agencies is to spread the news of the disaster to a wide body of people around the world who care about the security of libraries. The libraries can then work to shape the response that will be coming to obtain the specific help that they need to rebuild their services. Library NGOs lend their international reputations to the appeal for assistance, and they also help to apply pressure to combatants to make them try to protect libraries from further attacks or give aid workers and donations access to the affected resources by making sure that everyone knows that these events are on the world stage.

In these circumstances of war, the cost of library damages are often difficult to determine. Many of the collections have been put together over the course of years, without any estimate of much it would take to replace them. Even in cases where libraries

have been successfully rebuilt after war, much of the books have come in as donations. Some libraries have opened for business in the midst of conflict but continue to have much poorer services than before, because there have not been significant donations. So, monetary considerations have not been seen as so important in cases of war in this study, partially because they play less of a role in the success of rebuilding. Instead, cases were included in this study where there was evidence of when library services were finally restored. It just so happens that all of the libraries where that can be determined of the reports of wartime library destruction had the support of International Library Agencies, which shows somewhat the value of that involvement. All of the libraries, in fact, that had the support of library NGOs were able to return to service after war, such as the huge Kuwait National Library, though the Bosnian National Library has had tremendous support for the recreation of a national collection and users have had some access but the library is a long way from being fully rebuilt.

The international libraries in general in this study have some other lessons to teach us on the importance of approaching and directing the involvement of International Library Agencies to improve a library's return to service. The Soviet Union saw an excellent example of this in the fire that hit the Academy of Sciences Library in 1988. Fearing public unrest and embarassment, the country first tried to deny that there had been any significant damage from an event that really proved to be the most destructive library fire in modern history. However, after realizing the complexity of dealing with the damaged books, the library administrators in Leningrad asked for help from experts who had worked on the Los Angeles fire. Announcements by the library NGOs then led to

funding from a number of organizations, including Reader's Digest in order to restore the treasures of the library, though some of the work is still going on.

Many of the cases where libraries have appealed to the international community for help show, like the Leningrad Library, that contact with experts is the greatest aid that can come to libraries in some situations. Not only can they help with restoring books and documents, but, as in Montreal, Edinburgh, and New York, specialists can also help libraries that have lost very special materials get donations and find replacement material. For instance, floodwaters completely overwhelmed the Prague Archaeological Institute Library in 2002, destroying the unique collection of 70,000 journals, reports, and manuscripts. After desperate appeals to archaeologists around the world through both UNESCO and archaeological societies, the library managed to put together 20,000 valuable items. While this library no longer has the same quality of resources to offer researchers, the substantial donations from individuals and institutions helped recreate a functioning library.

The concern of specialists has been important for war torn libraries especially, such as those in Kabul, Baghdad, Bucharest, and Sarajevo. In general, experts have responded most strongly to massive destruction even for wealthy libraries. The Anna-Amalia Library in Weimar lost priceless Renaissance works to a fire in 2004, but after heavy government investment and international help from scholars the library has managed to reopen with a beautiful, expansive collection. In all of these cases, International Library Agencies have played a role in putting out the word about the disaster, and in many of them UNESCO or IFLA led the way in working with the library to coordinate donations.

Small local libraries around the world that have suffered disaster also benefit greatly from the involvement of International Library Agencies. In order for that help to lead to the successful restoration of library services these libraries need to catch the eyes of donors and often that means poor libraries that experience complete catastrophic destruction. Despite the example of the libraries affected by Hurricane Katrina, most of these institutions that have received worldwide attention have been in notably poor countries, though not ones with ongoing conflict. The Kashmir library has not yet been rebuilt, nor really have those in Bosnia or Iraq for that matter, but institutions in Aceh and Turkey have reopened with the help of international aid; after twenty years of negotiation, so did the one in Sri Lanka.

Conclusion

These are very different libraries in all that have been examined. And they have suffered from widely different disasters. So, what can we say about the ways that libraries have responded to the crisis of sudden losses? More importantly here, what can be learned about the best ways to improve the ways that libraries react to and recover from catastrophes?

The first thing to recognize is that different libraries have to understand how their circumstances shape the various ways they can try to survive disaster. Many small libraries in the United States can rest assured that insurance will cover rebuilding and book cleaning, even repurchasing a sort of replacement collection if need be. Others rely on the budgets of their cities or schools, hoping that the administrators will be able to find the necessary funds after any losses. What is clear from the cases in this study is that relying on just those funds will leave the library with a smaller collection, though

probably an updated one. Librarians and officials have often used the rebuilding as the chance to raise additional money to build libraries that were better than what was there before. Sometimes, this has required a reconception of the library and its affiliated offices. What that means for libraries in the future is that they need to decide in the disaster planning stage and in the early days after a disaster occurs if they are going to put in the effort to seize the chance build something better than what was there before. If the answer is yes, than these types of libraries, including those on large university campuses, need to learn the lessons of how to make the case for local, and in some situations international, assistance to the library quickly and widely.

Each special library around the world can be certain that if there is a dramatic loss of the collection or the ability of the library to serve its patrons, it will be difficult to obtain the tremendous funds necessary to recover the unique resources of the library. And doing so will require a great deal of time when the library will have to struggle to survive. However, many of these libraries can depend on friends and well-wishers who will put in a great deal of effort to make sure that the library can stay open, whether they are scholars, co-religionists, or compatriots. Some of these people will have access to the types of rare items that special libraries need if they hope to be able to reopen. Special collections librarians need to take these things into account in any disaster planning, expecially since help will likely be coming anyway so they need to know how to handle it effectively. The best way to do this is study the cases where disaster has struck similar collections and determine what responses have been most effective.

One thing that is clear from an analysis of library disasters in the past is that interest groups communicate the need of libraries to the people hoping to help, and these

groups lend their reputation to appeal for aid, making more successful. One important question for libraries is which group will handle the situation best. That can take some finesse. Librarians need to understand their audiences and realize that different types of disasters, such as arson or attack, make different organizations more effective. It is also important that librarians realize the strengths of the different types of people they are trying to reach to know who will have the best access to funds, replacement items, or political will.

Improving the ways that libraries recover from disaster requires that librarians understand the nature of funding that can be obtained in any disaster situation and the different types of people who can help in getting it. What is clear from this study is that International Library Agencies can be helpful, as can other groups who have an interest in any particular library, but all requests for help must be focused to the needs of the library and the interests of the group. Appeals for aid also need be directed to the best group, but librarians need to be realistic about the real assistance that can come in and the overall effort that it is going to take to deal with it.

Only in cases of complete wartime destruction does the help of International Library Agencies appear to be essential in the survival of libraries. And while some library administrators decided to keep public libraries closed after disasters in a few cases, many of the public libraries seem to be happy with how they were able to reopen with just the use of their insurance coverage. In fact, if we were to consider the time to the recovery of basic library services alone, those public libraries that made no appeal for outside help did very well. However, in the final tally of what the libraries were able to do in terms of financing and rebuilding, it is clear that those that requested help from

groups and International Library Agencies always did better in terms of what they were finally able to build and the library services they were able to offer.

Figure 1

Library	Event	Date
Jaffna Public Library, Sri Lanka	Riot	5/31/1981
Los Angeles Central Library	Arson	4/29/1986
USSR Academy of Sciences, Leningrad	Fire	2/14/1988
Bucharest University	War	12/22/1989
Plainfield Public Library (IL)	Tornado	8/28/1990
Northridge CSU	Earthquake	1/17/1994
Norwich Central Library	Fire	9/1/1994
Danbury Public Library (Conn)	Arson	2/27/1996
Cogregation B'nai Israel (CA)	Arson	6/18/1999
Macedon Public Library (NY)	Fire	4/29/2001
Randallstown Baltimore Public Library (MD)	Fire	5/5/2001
University of Washington Elisabeth C. Miller	Arson	5/21/2001
University of Glasgow Botany Dept. Library	Fire	10/24/2001
Kabul University Library	War	1/1/1994
Sikh Culture Society Library (NY)	Fire	3/8/2002
Perry Heights, Stark County Public Library (OH)	Fire	6/9/2002
Prague Archaeological Institute	Flood	8/14/2002
University of Edinburgh Cybernetics Library	Fire	12/07/2002
Burlingame Public Library (CA)	Water Main	2/17/2003
David H. Jones Library of Pierce, MO	Tornado	5/4/2003
Highland Elementary School library (AL)	Fire	5/15/2003
University of Georgia	Arson	7/23/2003
Sioux Center Public Library (IA)	Arson	7/24/2003
Foleshill Library (Coventry, UK)	Arson	9/7/2003
Springfield–Greene County (Mo.) Library	Arson	1/19/2004
Anna-Amalia Library (Weimar, Germany)	Fire	9/3/2004
University of Hawaii	Flood	10/30/2004
Aceh Provincial Library (Indonesia)	Tsunami	12/26/2004
United Talmud Torahs School Library (Montreal)	Arson	4/5/2004
Virginia Public Library (MN)	Fire	4/14/2005
Belle Terre Public Library (LA)	Hurricane	8/29/2005
Rowlett Public Library (TX)	Water Main	11/20/2005
Northeastern Illinois University	Fire	11/28/2005
University of New Mexico	Fire	4/30/2006
National Czech & Slovak Museum & Library	Flood	6/13/2008
Plympton library (UK)	Fire	8/20/2008

Figure 2

Library	Event	USD Damage	Funds Raised
Jaffna Public Library, Sri Lanka	Riot		$1,000,000
Los Angeles Central Library	Arson	$2,200,000	$13,000,000
USSR Academy of Sciences, Leningrad	Fire		$1,685,000
Bucharest University	War		
Plainfield Public Library (IL)	Tornado	$200,000	$84,600
Northridge CSU	Earthquake	$22,000,000	$22,000,000
Norwich Central Library	Fire	$21,449,364	$97,288,127
Danbury Public Library (Conn)	Arson	$2,000,000	$4,000,000
Cogregation B'nai Israel (CA)	Arson	$1,000,000	$1,500,000
Macedon Public Library (NY)	Fire	$1,000,000	$2,400,000
Randallstown Baltimore Public Library (MD)	Fire	$250,000	$1,200,000
University of Washington Elisabeth C. Miller	Arson	$3,000,000	$7,000,000
University of Glasgow Botany Dept. Library	Fire	$10,077,743	$15,548,517
Kabul University Library	War		$65,265
Sikh Culture Society Library (NY)	Fire	$3,000,000	$4,000,000
Perry Heights, Stark County Public Library (OH)	Fire	$2,000,000	$12,600,000
Prague Archaeological Institute	Flood	$5,000,000	$1,500,000
University of Edinburgh Cybernetics Library	Fire	$3,004,808	$1,502,404
Burlingame Public Library (CA)	Water Main	$500,000	$500,000
David H. Jones Library of Pierce, MO	Tornado	$500,000	$500,000
Highland Elementary School library (AL)	Fire	$70,000	$70,000
University of Georgia	Arson	$1,500,000	$17,000,000
Sioux Center Public Library (IA)	Arson	$600,000	$5,000,000
Foleshill Library (Coventry, UK)	Arson	$817,394	$671,666
Springfield–Greene County (Mo.) Library	Arson	$500,000	$500,000
Anna-Amalia Library (Weimar, Germany)	Fire	$73,600,000	$91,868,915
University of Hawaii	Flood	$34,000,000	$48,000,000
Aceh Provincial Library (Indonesia)	Tsunami		$110,000
United Talmud Torahs School Library (Montreal)	Arson	$230,468	$384,113
Virginia Public Library (MN)	Fire	$2,900,000	$2,358,000
Belle Terre Public Library (LA)	Hurricane	$2,000,000	$865,432
Rowlett Public Library (TX)	Water Main	$100,000	$100,000
Northeastern Illinois University	Fire	$1,000,000	$1,375,021
University of New Mexico	Fire	$5,000,000	$7,700,000
National Czech & Slovak Museum & Library	Flood	$9,000,000	$545,380
Plympton library (UK)	Fire	$469,170	$93,834

Figure 3

Library	Appeal	Recovery	Days
Jaffna Public Library, Sri Lanka	local	2/14/2003	7929
Los Angeles Central Library	local	5/22/1989	1119
USSR Academy of Sciences, Leningrad	IFLA	5/1/1988	77
Bucharest University	ALA	11/20/2001	4351
Plainfield Public Library (IL)	none	12/8/1991	467
Northridge CSU	none	7/21/2000	2377
Norwich Central Library	local	11/1/2001	2618
Danbury Public Library (Conn)	none	9/7/1996	193
Cogregation B'nai Israel (CA)	Jewish Federation of the Sacramento Region	12/16/2001	912
Macedon Public Library (NY)	none	7/31/2002	458
Randallstown Baltimore Public Library (MD)	none	7/18/2001	74
University of Washington Elisabeth C. Miller	local	12/1/2001	194
University of Glasgow Botany Dept. Library	none	11/11/2004	1114
Kabul University Library	UNESCO	1/13/2005	4030
Sikh Culture Society Library (NY)	Sikh Cultural Society	3/1/2009	2550
Perry Heights, Stark County Public Library (OH)	none	5/14/2007	1800
Prague Archaeological Institute	UNESCO	12/15/2004	854
University of Edinburgh Cybernetics Library	AAAI	1/1/2004	390
Burlingame Public Library (CA)	none	3/17/2003	28
David H. Jones Library of Pierce, MO	none	2/15/2005	653
Highland Elementary School library (AL)	none	8/1/2004	444
University of Georgia	local (UGA Fund)	8/18/2003	26
Sioux Center Public Library (IA)	none	8/15/2008	1849
Foleshill Library (Coventry, UK)	none	3/22/2005	562
Springfield–Greene County (Mo.) Library	none	1/26/2004	7
Anna-Amalia Library (Weimar, Germany)	German Library Association	10/24/2007	1146
University of Hawaii	local (UH Fund)	3/29/2005	150
Aceh Provincial Library (Indonesia)	UNESCO	8/28/2007	975
United Talmud Torahs School Library (Montreal)	CJC	12/7/2004	246
Virginia Public Library (MN)	none	6/7/2005	54
Belle Terre Public Library (LA)	ALA	8/29/2008	1096
Rowlett Public Library (TX)	none	11/28/2005	8
Northeastern Illinois University	none	1/2/2006	35
University of New Mexico	none	3/1/2008	671
National Czech & Slovak Museum & Library	local	10/24/2008	133
Plympton library (UK)	none	1/21/2009	154

Figure 4

Library	Event Source
Jaffna Public Library, Sri Lanka	http://www.tamilnation.org/indictment/indict016.htm
Los Angeles Central Library	UNESCO, *Lost Memory - Libraries and Archives destroyed in the Twentieth Century*, 1996.
USSR Academy of Sciences, Leningrad	UNESCO, *Lost Memory - Libraries and Archives destroyed in the Twentieth Century*, 1996.
Bucharest University	UNESCO, *Lost Memory - Libraries and Archives destroyed in the Twentieth Century*, 1996.
Plainfield Public Library (IL)	http://www.plainfield.lib.il.us/general/tornadohistory.asp
Northridge CSU	http://library.csun.edu/mfinley/quake.html
Norwich Central Library	UNESCO, *Lost Memory - Libraries and Archives destroyed in the Twentieth Century*, 1996.
Danbury Public Library (Conn)	Jack Cavanaugh, "A Library Fire Spurs Copycat Fears," *New York Times*, 17 March 1999.
Cogregation B'nai Israel (CA)	http://www.ala.org/ala/alonline/currentnews/newsarchive/1999/june1999/arsondestroys.cfm
Macedon Public Library (NY)	http://www.ala.org/ala/alonline/currentnews/newsarchive/2001/may2001/firedestroys.cfm
Randallstown Baltimore Public Library (MD)	http://www.ala.org/ala/alonline/currentnews/newsarchive/2001/may2001/fireshutsdown.cfm
University of Washington Elisabeth C. Miller	http://www.ala.org/ala/alonline/currentnews/newsarchive/2001/may2001/rarebooksdamaged.cfm
University of Glasgow Botany Dept. Library	http://www.ala.org/ala/alonline/currentnews/newsarchive/2001/october2001/historiccollection.cfm
Kabul University Library	http://www.ala.org/ala/alonline/currentnews/newsarchive/2002/february2002/reportsafghanistan.cfm
Sikh Culture Society Library (NY)	http://www.ala.org/ala/alonline/currentnews/newsarchive/2002/march2002/firedestroys.cfm
Perry Heights, Stark County Public Library (OH)	http://www.ala.org/ala/alonline/currentnews/newsarchive/2002/june20021/firedestroys.cfm
Prague Archaeological Institute	http://www.archaeologie-online.de/cgi-bin/gforum/gforum.cgi?post=12396
University of Edinburgh Cybernetics Library	http://www.ala.org/ala/alonline/currentnews/newsarchive/2002/december2002/edinburghuniversity.cfm
Burlingame Public Library (CA)	http://www.ala.org/ala/alonline/currentnews/newsarchive/2003/february2003/brokensprinkler.cfm
David H. Jones Library of Pierce, MO	http://www.ala.org/ala/alonline/currentnews/newsarchive/2003/may2003/twomissourilibraries.cfm
Highland Elementary School library (AL)	http://www.ala.org/ala/alonline/currentnews/newsarchive/2003/may2003/alabamaschool.cfm
University of Georgia	http://www.ala.org/ala/alonline/currentnews/newsarchive/2003/july2003/arsonblameduniversity.cfm
Sioux Center Public Library (IA)	http://www.ala.org/ala/alonline/currentnews/newsarchive/2003/july2003/firedamagesiowa.cfm
Foleshill Library (Coventry, UK)	http://news.bbc.co.uk/1/hi/england/coventry_warwickshire/3087916.stm
Springfield–Greene County (Mo.) Library	http://www.ala.org/ala/alonline/currentnews/newsarchive/alnews2004/alnewsjan2004/springfieldmo.cfm
Anna-Amalia Library (Weimar, Germany)	http://www.independent.co.uk/news/world/europe/thousands-of-historic-books-destroyed-in-german-library-fire-551330.html
University of Hawaii	http://www.libraryjournal.com/article/CA485761.html
Aceh Provincial Library (Indonesia)	http://en.wikipedia.org/wiki/Library_damage_resulting_from_the_2004_Indian_Ocean_earthquake

United Talmud Torahs School Library (Montreal)	http://www.ala.org/ala/alonline/currentnews/newsarchive/alnews2004/april2004ab/firebomb.cfm
Virginia Public Library (MN)	http://www.ala.org/ala/alonline/currentnews/newsarchive/2005abc/april2005ab/vaminn.cfm
Belle Terre Public Library (LA)	http://nutrias.org/~nopl/foundation/noplfoundationappeal.htm
Rowlett Public Library (TX)	http://www.ala.org/ala/alonline/currentnews/newsarchive/2005abc/december2005ab/burstpipe.cfm
Northeastern Illinois University	http://www.ala.org/ala/alonline/currentnews/newsarchive/2005abc/december2005ab/niufire.cfm
University of New Mexico	http://www.ala.org/ala/alonline/currentnews/newsarchive/2006abc/may2006ab/zimmerman.cfm
National Czech & Slovak Museum & Library	http://www.iowalibraryassociation.org/displaycommon.cfm?an=1&subarticlenbr=67
Plympton library (UK)	http://www.resourceshelf.com/2008/08/20/uk-public-library-destroyed-by-fire/

Figure 5

Library	Funds Source
Jaffna Public Library, Sri Lanka	Destroying a Symbol: Checkered History of Sri Lanka's Jaffna Public Library, Rebecca Knuth, IFLA Seoul 2006
Los Angeles Central Library	UPI, "Hundreds Join Walk for Library - Event Raises Funds to Replace Books," *Daily News of Los Angeles,* 7 December 1986.
USSR Academy of Sciences, Leningrad	Rushworth M. Kidder, "Russians Rally to Save Burned Books. After Leningrad Fire," *Christian Science Monitor*, 13 April 1989.
Norwich Central Library	Norfolk and Norwich Central Library: the emerging phoenix, Hilary Hammond, New Library World 97 no. 6, 1996
Danbury Public Library (Conn)	Robert Miller, "Library Vacates Temporary Home," *The News-Times (Danbury, CT)*, 29 August 1996.
Cogregation B'nai Israel (CA)	Jennifer Garza, "A Time for Rededication - Temple B'nai Israel Celebrartes Its Library, Rebuilt After an Arson," *The Sacramento Bee,* 17 December 2001.
Macedon Public Library (NY)	Daryl Bell, "New Macedon Town Hall to Open," *Rochester Democrat and Chronicle,* 31 March 2003.
Randallstown Baltimore Public Library (MD)	Maria Blackburn, "Library Reopens in Randallstown Nearly Year after Fire Destroys it - $1.2 Million Restoration Includes Modernization, Improvements to Facility," *The Sun (Balimore, MD)*, 30 April 2002.
University of Washington Elisabeth C. Miller	Craig Welch, "Trial by Fire - A Radical Few are Testing the Rules of Environmental Engagement," *The Seattle Times,* 16 April 2006.
University of Glasgow Botany Dept. Library	Graeme Murrary, "11M University Building Rises from Ashes of Blaze; Massive Restoration Project Completed - Three Years after Fire Gutted Bower Campus," *Evening Times (Glasgow),* 11 November 2004.
Sikh Culture Society Library (NY)	Daniel Massey, "A Temple Rises from These Ashes It's Been Five Years Since the Sikh Cultural Center in Queens Burned, but Members are Keeping the Faith," *Newsday (Long Island, NY)*, 8 March 2007.
Perry Heights, Stark County Public Library (OH)	Bob Downing, "Canalway Plans Take Shape - High-Tech Learning Center in Stark Will be First Public Nontrail Destination," *Akron Beacon Journal*, 5 April 2004.
University of Edinburgh Cybernetics Library	http://www.inf.ed.ac.uk/admin/committees/library/meetings/03.06.04/minutes.html
David H. Jones Library of Pierce, MO	http://www.lita.org/ala/alonline/currentnews/newsarchive/2005abc/february2005a/ALA_print_layout_1_23275_23275.cfm
University of Georgia	http://onlineathens.com/stories/062605/new_20050626071.shtml
Foleshill Library (Coventry, UK)	http://www.designinglibraries.org.uk/view/index.php?id=42ad58ba8caf3
Springfield–Greene County (Mo.) Library	http://msn-list.te.verweg.com/2005-May/003378.html
University of Hawaii	http://the.honoluluadvertiser.com/article/2005/Oct/30/ln/FP510300350.html
Aceh Provincial Library (Indonesia)	http://www.unesco.or.id/activities/comm/disaster/389.php
Virginia Public Library (MN)	*Duluth News-Tribune (MN),*"Minnesota Briefs," 7 June 2006.
Belle Terre Public Library (LA)	http://www.jefferson.lib.la.us/Wishlist/overview.htm
Northeastern Illinois University	http://www.procure.stateuniv.state.il.us/dsp_notice.cfm?Uni=NEIU&PN=R64774
University of New Mexico	*Albuquerque Journal*, "Glitch Delays Fire Settlement, 18 January 2007.

Figure 6

Library	Follow-Up Source
Bucharest University	http://www.informaworld.com.libproxy.lib.unc.edu/smpp/section?content=a713531895&fulltext=713240928
University of Washington Elisabeth C. Miller	Marty Wingate, "A New Chapter - Horticultural Library Puts Down Even Better Roots in UW's Rebuilt Merrill Hall, 20 January 2005.
Perry Heights, Stark County Public Library (OH)	http://www.starklibrary.org/locations-detail.php?BranchID=9
University of Edinburgh Cybernetics Library	http://www.cilip.org.uk/publications/updatemagazine/archive/archive2005/march/battersbymarch05.htm
Burlingame Public Library (CA)	Terry Nagel, "Neighbors Help Burlingame Library Heal After Flood Public Rallies to Restore Collection," *San Francisco Chronicle, 18 April 2003.*
Highland Elementary School library (AL)	http://www.ecboe.org/211520428213622327/site/default.asp
Sioux Center Public Library (IA)	http://www.siouxcenter.lib.ia.us/library-information/history2/fire-future/document_view?None&month:int=9&year:int=2008
Foleshill Library (Coventry, UK)	Emma Race, "Blaze Hit Library Reopens," *Coventry Evening Telegraph,* 22 March 2005.
Anna-Amalia Library (Weimar, Germany)	*Spiegel Online International*, "The Books are Back Weimar's Anna Amalia Library to Re-Open," 10 April 2007.
Rowlett Public Library (TX)	Rowlett Public Library, "Water Damages Books in Children's Area," *Check Outs,* December 2005.
Northeastern Illinois University	www.auditor.illinois.gov/Audit-Reports/Compliance-Agency-List/NEIU/FY05-NEIU-FIN-full.pdf
National Czech & Slovak Museum & Library	http://www.ncsml.org/LocalUpdate.htm
Plympton library (UK)	*The Herald (Plymouth, England),* "Library to Reopen in Next Month," 4 November 2008.

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Preserve the Memory of the World." in *Disaster and After: The Practicalities of
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