

Planning for a Disaster: Pre and Post Recovery Preparation and Procedures



Zimmerman Library Fire Periodical
Recovery

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Pre-Disaster Planning

- Natural and human-made disasters happen
- Natural:
 - Hurricanes
 - Fires
 - Floods
 - Mold from water damage
 - Avalanches
 - Pestilence
 - Earthquakes
 - Tornadoes



Pre-Disaster Planning

- Human Made:
 - Fires (arson, electrical)
 - Floods (interior/exterior leaks)
 - Bad Driving (see: [http://www.libs.uga.edu/maplibrary_redecorati
on/](http://www.libs.uga.edu/maplibrary_redecorati
on/))
 - Food/Drinks



Be Prepared

Have an up-to-date disaster plan

– Does your plan include:

- a Disaster Emergency/Recovery Response Team that incorporates appropriate library and campus officials?
- an emergency response/recovery component including appropriate phone numbers or a phone tree?
- a committee responsible for continual review and updating?
- the necessary recovery materials for the type of disaster encountered?
- an up-to-date inventory of the library's holdings?
- contractors that specialize in disaster recovery (local and national remediation companies)?
- what to do in the short, intermediate, and long-term regarding restoring essential operations?



Who handles the response?

- Disaster Emergency/Response Team should include:
 - Library Directors
 - Branch/Unit Heads
 - Supervisors of impacted department(s)
 - Facilities Managers
 - Campus Safety and Physical Plant
 - Other library and campus personnel as needed for the particular response



Communication is Vital

- The Emergency Contact List should include:
 - University and Library Administrators
 - Contact Campus Media Services and Safety Personnel
 - Campus Media Services should be responsible for media contact, interview arrangements, tours of damaged facilities/properties
 - Campus Safety and Physical Plant
 - Contact personnel that oversee water, electric, and other essential services
 - Library Branch/Unit Directors
 - Contact Supervisors
 - Supervisors
 - Contact Staff and student employees as needed
- Update this list regularly
 - Essential University and Library personnel should have a copy at home or other safe location



Will it work in practice?

Don't set your library on fire or
flood it to see if it does



- At approximately 10:35 on April 30th, 2006 a fire alarm is sounded in Zimmerman Library
- AFD Engine Company #3 (located near UNM) responds, deploys and begins suppressing the fire 11 minutes after receiving the alarm



- Zimmerman Library suffers heavy smoke, soot, and electrical damage throughout the building; entire smoke/fire alarm system damaged



- Actual fire damage is limited to the Zimmerman Library Periodicals Area located in the basement





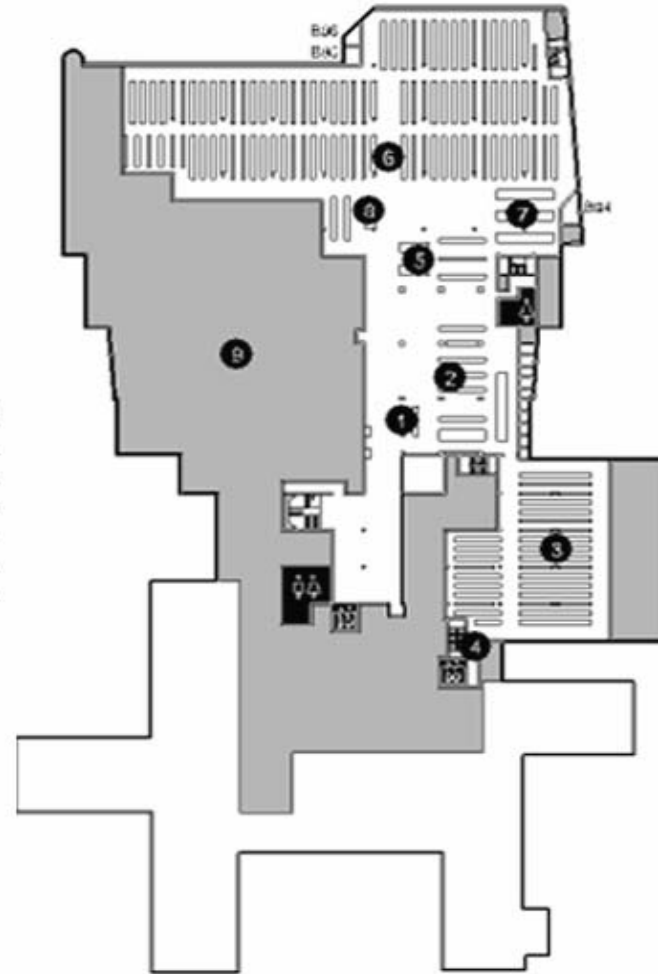




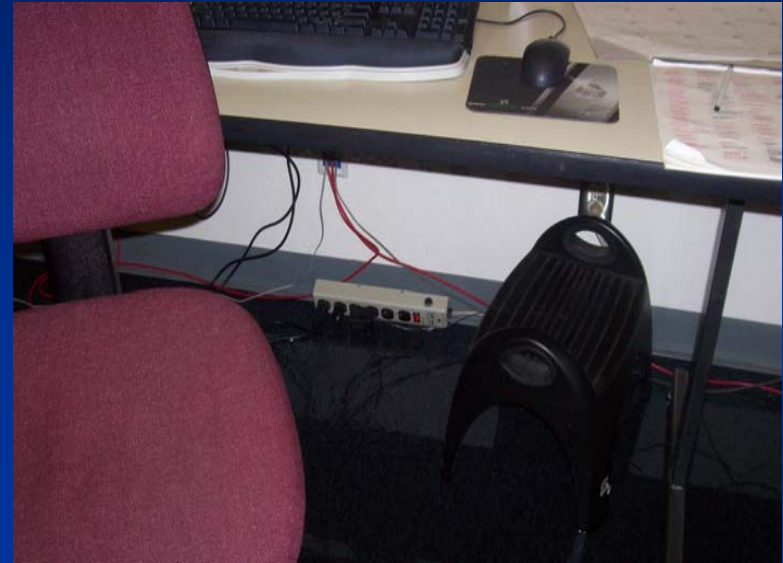
Zimmerman Library Basement

Basement

- 1 > **Reference Desk** > Information and Assistance
- 2 > **Government Information** > Reference Collection
- 3 > **Government Information** #A through #TC
- 4 > **Access to Basement 2** > Government Information
#TD - #Z and Dewey Call Number Items
- 5 > **Newspapers**
- 6 > **Periodicals** > Magazines and Journals
- 7 > **Microfilm**
- 8 > **Microfiche**
- 9 > **Technical Services**



- Heavy water damage results from fire suppression in Basement level







Government Information Department



Government Information Department



Initial Fire Investigation

- Due to investigations by various local, state, and federal fire officials, Zimmerman Library personnel were not allowed into the building until May 10th, 2006



UL Internal Response

- Pertinent University and Library personnel contacted during fire
- All Zimmerman Library personnel contacted shortly after the fire was extinguished (Dan called at 2:35A)
- Other Library personnel contacted by email or phone the following morning by their immediate supervisor
- Daily email briefings sent to all UL employees the week following the fire
- DRAT (Disaster Recovery Assistance Team) met daily
- Established alternate work locations for staff including new contact lists



Restoring Services during Investigation

- Reference services moved to the Student Union Building



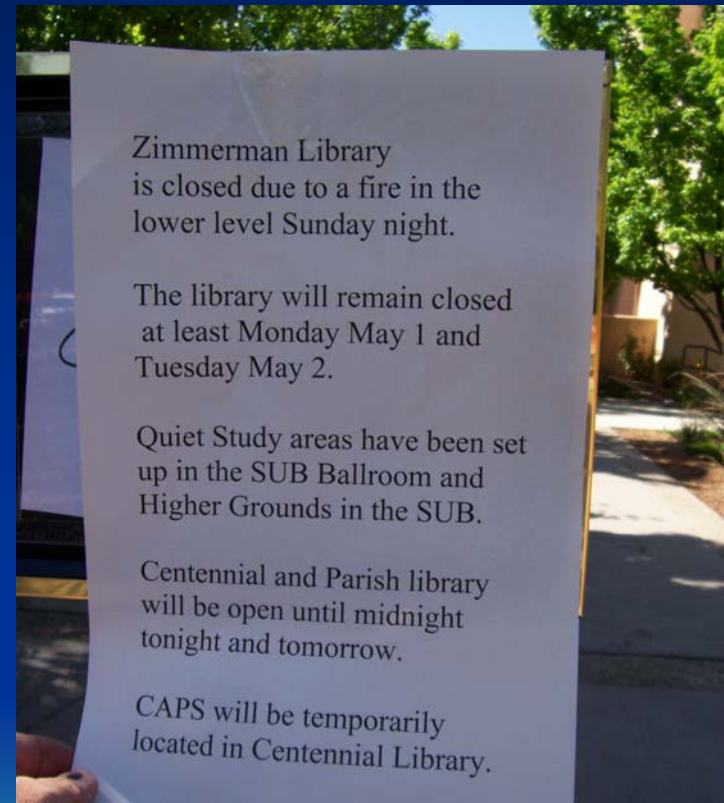
Restoring Essential Services

- Zimmerman Public Service Phones (Reference, ILL, Circulation) forwarded to Centennial Science & Engineering Library for service provision
- Extended hours at CSEL to compensate for lost hours at Zimmerman
- Established alternate public service/information kiosks in Student Union Building and outside Zimmerman Library
- Transferred Zimmerman Paper Reserves to CSEL
- Developed paging system to retrieve books from upper floors of Zimmerman (after they were cleaned and deodorized)
- Notified GPO and NM Selective Depository libraries about Zimmerman Fire
- Updated Library Web Pages daily with Zimmerman News



Restoring Essential Services

- Develop and deploy appropriate (and optimistic) signage



Signage

ZIMMERMAN LIBRARY CLOSED

Zimmerman Library is closed until further notice due to a fire in the basement area on the evening of April 30th. Services are being provided at other locations as follows.

LIBRARY BRANCHES

Telephone Numbers:	CSEL	Fine Arts	Parish	Zimmerman
Reference	277-4412	277-2355	277-8853	934-4571 (info only)
Circulation	277-4858	277-2357	277-5912	277-5912 (Parish)

Zimmerman Services – Where are they now?

Interlibrary Loan ILL is located at CSEL – call 277-4858 to find out if material is ready for pickup. Use the webform linked from elibrary.unm.edu to make new requests. Return ILL books to any branch.

Paper Reserves at CSEL Check LIBROS to see if reserve material is available. Faculty may take paper reserves to any of the open branches for the summer session.

E-Reserves Are available as usual on elibrary.unm.edu. Faculty may take materials for scanning/up loading to any of the open branches for processing.

Reference Services Zimmerman reference has been relocated to the SUB. Zimmerman Reference, Government Information, and the Center for Southwest Research staff are currently providing reference and information services on the main floor of the SUB near the north entrance. They can be reached at 934-4571 or by submitting a question to the Ask A Librarian service on elibrary.unm.edu. Reference staff at CSEL, Parish, and Fine Arts are also able to help you. Hours are posted on elibrary.unm.edu.

Employees A list is being compiled of where individuals or work groups are being relocated. This list will be at any of the reference desks as soon as it's ready. Library Employees will be checking their voicemail on a regular basis.


Books Materials from the 2nd and 3rd floors of Zimmerman are being retrieved by request. Details are on the website and a request form is linked from the LIBROS record of materials that can be pagged. Patrons are notified by email as soon as materials are ready to be picked up at PARISH Library.

Everything else in Zimmerman including CSWR materials is unavailable for the time being but may be requested from other libraries through ILL. Check with the Reference Staff to make sure items are not available electronically.

Return books to any open branch. Return recalled books to any open branch.

Personal Belongings left in Zimmerman
Students and faculty who have personal effects in Zimmerman Library should contact Campus Police at 277-1919 or stop by Campus Police Office in Hokona Hall. They will be asked to provide an ID and description of their belongings so campus police can retrieve them.

Zimmerman = 53 Parish = 87 Fine Arts = 62 CSEL = 46



Visit elibrary.unm.edu for updates.

Information Kiosks at Zimmerman entrances





**ZIMMERMAN
INFORMATION**

01/02/2005



Interlibrary Loan Department relocated to Centennial Library



Transferring Paper Reserves to Centennial Library



Additional Security Hired



- May 10th, 2006 UL regains temporary occupancy of Zimmerman. Access is limited to administrative staff and recovery team.
- May 10th, 2006 Anne and Dan begin their evaluative process of the Government Information Reference, Microforms and Periodical collections to initially assess damage from the fire and subsequent suppression



- The periodicals area is divided into 2 major sections—Fire and Non-fire damaged sections

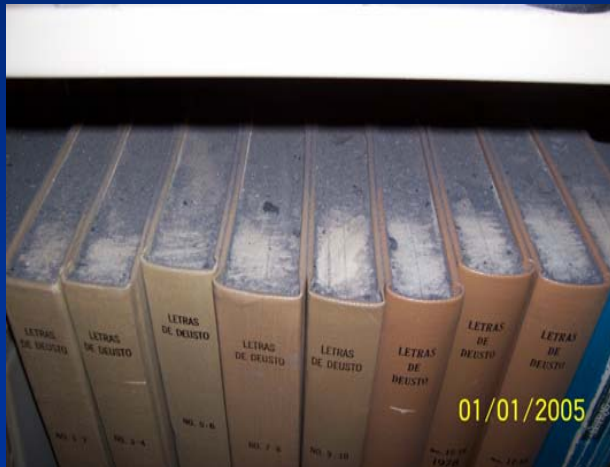


The area where the fire occurred is heavily damaged or completely destroyed.



The non-fire area suffers heavy smoke/soot damage

Soot/Smoke Debris



Initial Inspection

- Entire area initially surveyed to determine proper inventory, evaluation, and recovery processes



Assessing the Damage and Preparing for Recovery/Salvage

- First step was determining where in the stacks fire damage was most severe
- For inventory control purposes each side of a shelving range was assigned a number
- Area was then mapped with call number ranges for materials contained on each range
- Stacks are visually inspected and evaluated for smoke, soot, thermal, water, and fire damage. Each range in the area near the fire was given an initial rating of low, moderate, or heavy damage
- With no electricity, lanterns and flashlights were used in the initial evaluative process



Initial Inspections





Stack Assessment List

Anne's copy

BMS Catastrophe, Inc. Inventory Control Sheet
Fire Stacks

Stack# Box#	Room #	Description	Location	Packed By:
1		BK 3701/A7 → CB 301 BS		L
2		BR 1 H4 → BR140 H45		M
3		BR ISS - BR20 E85		M
4		B2 R2 - B8 H419		M
5		B1 P5 - R2 E86		M
6		B1 M52a - B1 P5		M
7		B1 A8 - B1 M46		M
8		AS302 M885 - B1 A8		M-H
9		AS78 B55 - AS302 M52		M-H
10		AS36 D3 - AS78 B55		M-H
11		AS30 - AS M3 A22		M-H
12		AP66 V45 - AS30 K46		M-H
13		AP65 J62 - AP65 V45		M-H
14		AP63 R676 - AP65 J6		H
15		AP63 H779 - AP63 R66		M-H
16		AP63 C6697 - AP63 H779		H
17		AP63 C31 - AP63 C66916		M
18		AP60 P34 - AP63 C272		H
19		AP50 N6 - AP60 P34		M-H
20		AP30 S66 - AP50 N6		M-H

Anne's copy

BMS Catastrophe, Inc. Inventory Control Sheet
2 per no fire stacks

Stack# Box#	Room #	Description	Location	Packed By:
100		HM1575 - HM251 R4		
101		HM258 C45 - HM1563		
102		HNIT7x - HQ1 M4		
103		HQ1 M4 - HQ1060 J596		
104		HQ160 J6 - HT101 A5		
105		HT101 A5 - HU1 J56		
106		HU1 J56 - HU2350 T4		
107		HU2350 T415 - HX1 M66		
108		HX1 M66 - HX8 P723		
109		HX8 P723 - J7563x		
110		J7563x - JA1 P62		
111		JA1 P63 - JA8 B7		
112		JA8 B6 - JK1 U65		
113		JK6 T363 - JU4201 B64		
114		JU4201 B64 - JX1901 J56		
115		JX1901 J56 - K19 D2		
116		K19 D26 - L11 E29		
117		L11 E3 - L11 J5		
118		L11 J5 - L11 M3		
119		L11 M3 - L11 S32		

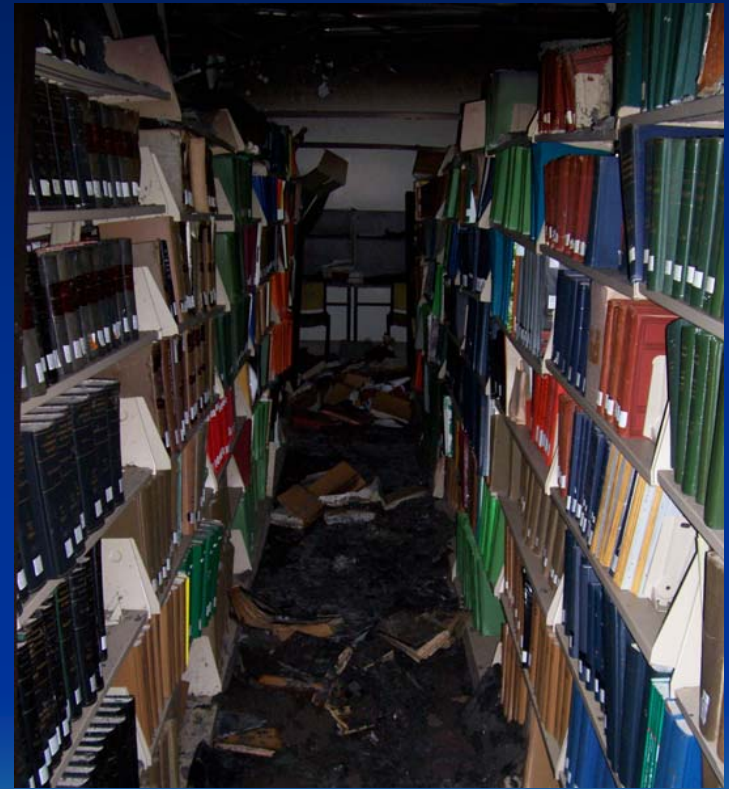
- Stack numbers 42-76 (east side of fire damaged area) sustain heavy damage



Stacks 42--76



Stacks 42--76



Stacks 42--76

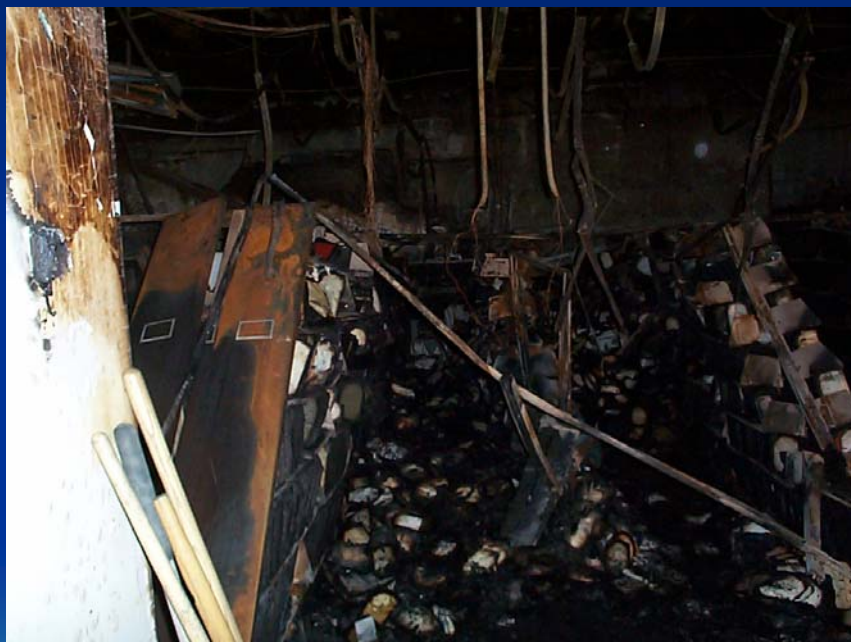


Lost materials

- Ranges 57—64 (area of fire) were a complete loss



Stacks 57--64



Stacks 57--64



Piecemeal Salvage near Fire

- Remaining stacks on east side were collapsed due to water, heat and the weight of the volumes



East Side Fire Stacks



Stacks 65--76



East Side Fire Stacks



- May 11-12, 2006
 - BMS CAT awarded contract for cleanup of building and packout of salvageable materials in basement



- Maloy Construction awarded contract to remove and demolish entire basement



- Non-fire stacks labeled and the inventory/mapping of the call numbers completed
- GID Reference stacks numbered
- Due to carpet being installed 18 months earlier, all the microform cabinets had been numbered; those numbers were retained for inventory control purposes



- May 13—14, 2006:
 - Range by range, shelf by shelf, Anne and Dan visually inspect all materials housed on the west side of the Fire Area
 - Work done initially by lantern and flashlight
 - Hardhats, masks and protective clothing were required to work in the basement.
 - All materials on each top and bottom shelf are removed and visually inspected for fire, water, soot, or thermal damage.
 - Stacks 8-22 sustained significant fire, water, and/or thermal damage on the eastern side of the stacks as well as each top and bottom shelf
 - Once each volume was assessed, those we were unable to salvage were disposed of by the construction contractors



- May 15-29:
 - Shelving on the fire side (east) had been stabilized



- Stack 42 sustained little fire damage although some materials are damaged due to the collapse of the shelving
- Anne and Dan work with BMS CAT inventory/packing crews in slowly removing, inspecting and separating damaged from non-damaged volumes



- Construction contractors follow and dismantle and remove empty fire-damaged shelving so as to provide safer access to next range
- This process was very time-consuming due to the nature of the work; over 70,000 volumes were examined over a period of approximately 5 days



Protocols Used in Assessment of Periodicals

Before Anne and Dan entered into the fire-damaged area, protocols were developed by UL personnel to ensure that as much material as possible could be saved.

These protocols were developed from a myriad of resources including current library literature, consultation with other preservation experts in and out of the UL system, and with BMS CAT



- The primary emphasis was to save as much material as could be regardless of thermal damage. Some items saved have heavy thermal damage to the binding but can be rebound. Because the evaluations were done under difficult circumstances, items with heavy exterior damage may need to be re-evaluated after their return. Some may be too severely damaged for rebinding





05/01/2006



Protocols Used in Assessment of Periodicals

- A visual inspection of all the stacks in the fire damaged area was done
 - The visual inspection was done mostly by flashlight and lanterns due to the lack of electricity in the area
- Each stack side was numbered being on the north wall running to the non-fire damaged area and then back to the northeast wall
- Each stack was inspected first for thermal/fire damage
 - Where thermal damage was noted, shelves were noted on inventory list—heavy, moderate, light
 - Stacks 42-76 were very difficult to visually assess due to the nature of the area and these were the stacks that had collapsed



Protocols Used in Assessment of Periodicals

- Stacks 1-41 (west side) sustained damage but were still standing
- Each section and shelf were visually assessed by removing each volume where moderate to heavy thermal damage was noted—mostly on the top/bottom two shelves of each section
- Fire/water damage patterns were inconsistent on each shelf—shelves on Stacks 8-22 had the most damage
- Stacks 42-76 were re-inspected with appropriate safety measures in place due to the collapsed nature of this shelving



Protocols Used in Assessment of Periodicals

- What was discarded:
 - ❖ Volumes which had been burned—pages has been burned beyond any reasonable means of remediation
 - ❖ Volumes which had sustained heavy thermal, water, or burn damage into a portion of the text



- ❖ Volumes which had sustained thermal, water, or burn damage to the top, bottom, or side margins and which could not be trimmed and recased (rebound) due to lack of necessary inner margins
- ❖ Volumes which had been saturated by water (note— due to the lack of access to the area for approximately 10 days, books which might have been saved due to water damage were not as they had dried, swelled, and become heavily infiltrated with toxics from the water.

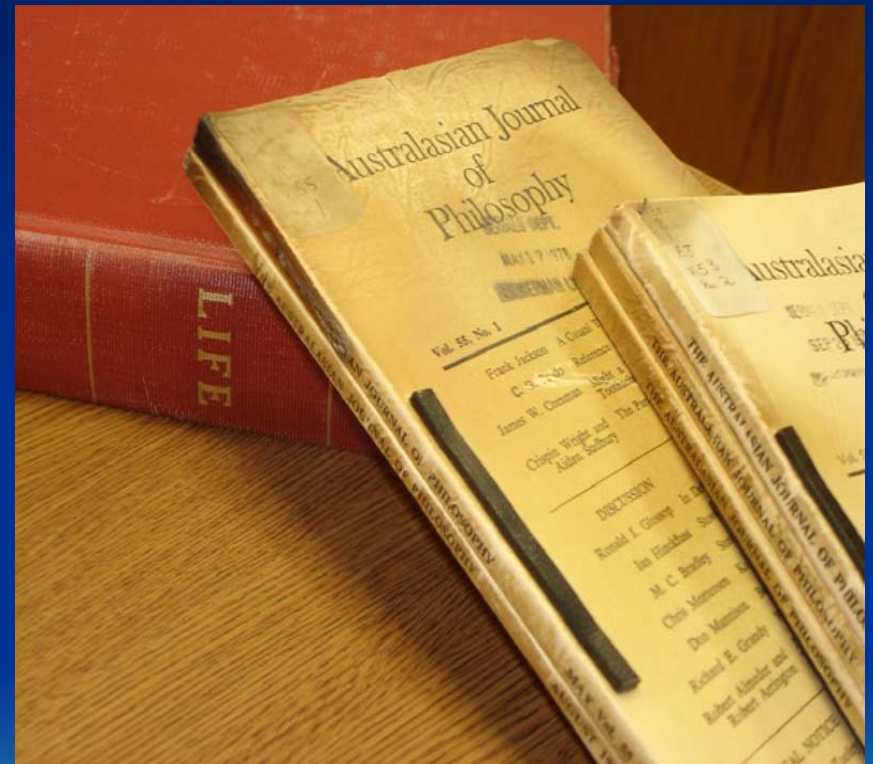


Protocols Used in Assessment of Periodicals

- ❖ Loose issues and items with non-buckram binding often suffered extremely heavy damage (thermal, burn, or water) while some items located next to these did not. In these cases, the damaged items were discarded while attempting to salvage the bound runs
 - ❖ Some bound volumes and loose issues were crushed beyond repair because of the collapsed shelving



- Every attempt was made to save some of the highly damaged volumes that are in our research collections (e.g., Anthropology, Ibero, Latin American Studies). Note that once many of these materials are returned, a further assessment will be conducted to determine if they can be re-incorporated into the collection



Protocols Used in Assessment of Periodicals

- More than 1000 volumes of periodicals were saved although heavily thermal damaged due to content which did not appear at the time to be burned
- As these volumes are returned a closer inspection will be required to determine whether or not they can be recased and reshelved for patron use
- A detailed inventory of discarded materials was maintained and transferred to an Oracle database for collection redevelopment



Inventory Sheet for Lost Volumes

5 BMS Catastrophe, Inc. Inventory Control Sheet

lost vols. in inventory

Vol Box #	Year	Description	Location	Packed By:
11-31	1961	Papeles de Son armadans AP 60 P34	Zin	
1	1979	Gaceta Ilustrada AP 60 G3	Pala	
1	1978	Gaceta Ilustrada AP 60 G3		
1	1976	Gaceta Ilustrada AP 60 G3		
21-22	1950-51	Revista de America AP 63 R327		
1	1945	Revista de Am AP 63 R327		
2	1945	Rev. de Am AP 63 R327		
3	1945	Rev. de Am AP 63 R327		
152	1963	Cuadernos Hispanoamericanos AP 63 C 6697		
33/34	1952	Cuadernos Hispanoamericanos AP 63 C 6697		
70	1972	Kentucky Historical Society <i>(? call # returned)</i>		
9-10	1945?	Revista Cubana AP 63 R535		
7-8	1948?	Revista Cubana AP 63 R535		
481-542	1901-1995	Cuadernos Hispanoamericanos AP 63 C 6697		
12-13	1948	Univ. Nacional de Colombia <i>(? call #)</i>		
14-15	1949	Univ. Nacional de Colombia <i>(? returned)</i>		
15-16	1950	Univ. Nacional de Colombia		
Suppl 9	1983	Primera Plana AP 63 P7		
116-117	1959	Cuadernos Hispanoamericanos AP 63 C 6697		
142	1967	Cuadernos Hispanoamericanos AP 63 C 6697		
10	1972	Primera Plana AP 63 P7		

Lost_journal_volumes__sorted

AP60 A6	Arbor	1998	159 (Jan-A)	16	
AP60 A6	Arbor	1998	160 (May-A)	16	
AP60 A6	Arbor	1998	161 (Sep-D)	16	
AP60 A6	Arbor	1999	162 (Jan-A)	16	
AP60 A6	Arbor	1999	164:645-64	17	
AP60 A6	Arbor	2000	165:649-65	17	
AP60 A6	Arbor	2000	166:653-65	17	
AP60 A6	Arbor	2001	168:661-66	17	
AP60 A6	Arbor	2001	169 (May-A)	16	
AP60 P34	Papeles de Son Armadans	1961	11:31	15	stack 18
AP60 P34	Papeles de Son Armadans	1967	47:139	19	
AP60 P34	Papeles de Son Armadans	1968-1976	48-240	19	
AP60 R43	Revista de occidente	1984	32	18	
AP60 R43	Revista de occidente	2002-2003	253-268	19	
AP60 R5	Revista espanola de ambos mundos	1853	1	19	
AP60 R5	Revista espanola de ambos mundos	1854	2	18	
AP61 A4	La Alhambra	?	1	18	
AP62 A43	Alianza	1943-1955	36-48	18	
AP62 A43	Alianza	1956	49	18	Stack 18
AP62 A43	Alianza	1957-1959	50-52	18	
AP63 A672	Aqui	1984	2	18	
AP63 C669	Cuadernos americanos	1973-1975	190-199	18	
AP63 C6697	Cuadernos hispanoamericanos	1952	33-34	15	stack 16 - Remains for shelves
AP63 C6697	Cuadernos hispanoamericanos	1959, 1958	116-117, 1	15	
AP63 C6697	Cuadernos hispanoamericanos	1963	158	15	
AP63 C6697	Cuadernos hispanoamericanos	1982-1995	481-542	15	
AP63 C829	Cultura universitaria		87-106	43	
AP63 C829	Cultura universitaria	1978-1979	62	18	
AP63 C829	Cultura universitaria	1985-1986	85-86	18	
AP63 C87	Cursos y conferencias		1-7	43	
AP63 E24	Eco	1980-1984		43	
AP63 E5	Ensayos		1-18	43	
AP63 H56	Hispano Americano	1952	21:535-543	23	no call # in list
AP63 H56	Hispano Americano	1952	21:545-548	23	no call # in list
AP63 H56	Hispano Americano	1979	75:1957-19	24	
AP63 H56	Hispano Americano	1979	76:1957-19	24	
AP63 H56	Tiempo	1979	76:1963 su	24	

Post Disaster Recovery

- Review each process and procedure that was part of your Recovery Plan
 - What went right?
 - What didn't?
 - What went well?
 - What didn't?
 - Are there processes or procedures that you wish to change?
 - Did all the participants response accordingly?
 - Did all the participants follow through on their duties?
 - Did the contractors fulfill their obligations?
 - Did the Insurance agencies fulfill their obligations?
- Review your Disaster Plan and make necessary changes
 - Personnel (library and campus)
 - Update library inventory
 - Work with campus, local, state, regional and national entities to ensure continued cooperation



Remediation/Clean Up

- BMS CAT hired to clean building, books and HVAC.
- Maloy Construction hired to remove destroyed materials including books, shelving, and furniture.
 - During the pack-out of books by BMS CAT it was determined that the entire basement had to be demolished in order to completely rid it of smoke and soot damage. Maloy removed all debris and BMS CAT remediated building through their cleaning processes.



Building Demolition/Debris Removal



Building Demo/Debris Removal



Building Demo/Debris Removal



Building Demo/Debris Removal



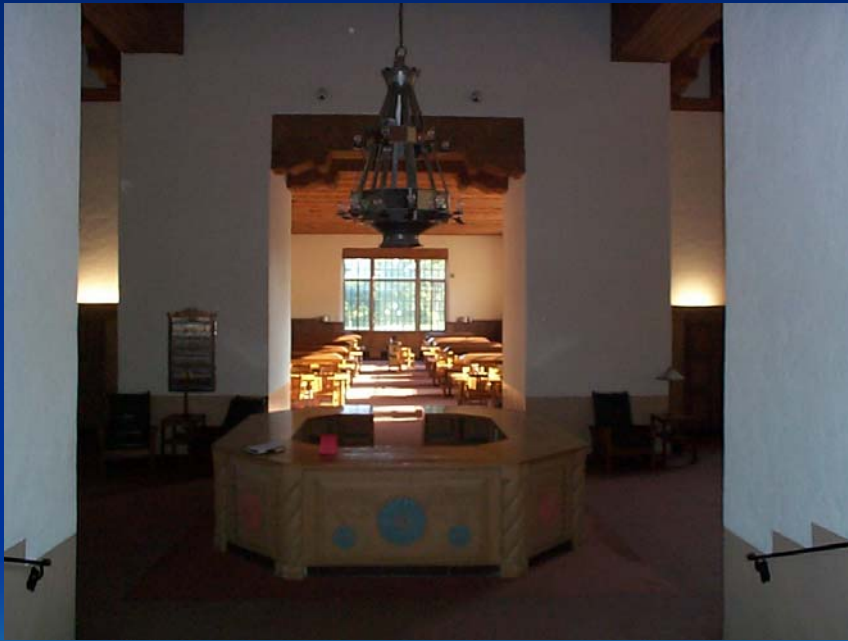
Building Demo/Debris Removal



Building Demo/Debris Removal



Building Remediation



Building Remediation



Building Remediation



Building Remediation



Building Remediation



Building Remediation



Building Remediation



Materials Pack Out



Materials Pack out



Materials Pack out



Materials Pack out



Materials Pack out



Materials Pack out



Materials Pack out



Is this your office?



List of Resources

- **Northeast Document Conservation Center:**
 - <http://www.nedcc.org/>
 - **A Free Template for Writing Disaster Plans**
 - <http://www.nedcc.org/welcome/disaster.htm>
- **The National Archives**
 - <http://www.archives.gov/preservation/disaster-response/guidelines.html>
- **Disaster preparedness and response**
 - <http://palimpsest.stanford.edu/bytopic/disasters/>
- **Society of Rocky Mountain Archivists**
 - <http://www.srmarchivists.org/preservation/resources/websites.htm#disaster>



List of Resources

- Disaster Preparedness and Recovery Resources for Libraries and Librarians
 - <http://www.ala.org/ala/washoff/WOissues/disasterpreparedness/distrprep.htm>
- FEMA: Building a Disaster-Resistant University
 - <http://www.fema.gov/library/viewRecord.do?id=1565>
- Handbook for Emergency Preparation and Response
 - <http://agextension.tamu.edu/disaster.pdf>
- Building Partnerships to Reduce Hazard Risks Tips for Community Officials, Colleges and Universities
 - <http://www.fema.gov/institution/collegebrochure.shtm>



List of Resources

- **FEMA: Pre-Disaster Mitigation Grant Program**
 - <http://www.fema.gov/government/grant/pdm/index.shtm>
- **Library Preservation at Harvard: Emergency Preparedness**
 - <http://preserve.harvard.edu/emergencies/preparedness.html>
- **Heritage Preservation, The National Institute for Preservation: Field Guide to Emergency Response**
 - <https://www.heritagepreservation.org/catalog/product.asp?IntProdID=33>
- **May Day Activity Lists**
 - <http://www.archivists.org/mayday/MayDayActivityList.pdf>
 - **Outline for Basic Emergency Procedures**
 - <http://www.archivists.org/mayday/MayDayEmergencyProcedures.rtf>



List of Resources

- **A Disaster Preparedness Plan For Small Public Libraries**
 - http://winslo.state.oh.us/services/LPD/disaster_frontend.html
- **Disaster Resources for Cultural Institutions**
 - http://www.heritagepreservation.org/programs/TF_C.HTM
- **GAO Reports and Testimonies Related to Disaster Preparedness, Response and Reconstruction**
 - <http://www.gao.gov/docsearch/featured/dpr.html>



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