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EMERGENCY PREPAREDNESS IN LIBRARIES

A COMMON RESPONSIBILITY

VON CORNELIA POSCH

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Berliner Handreichungen zur Bibliotheks- und Informationswissenschaft

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Abstract:

Libraries and other cultural institutions have a responsibility towards society, to preserve the goods entrusted them for the present and the future, and to protect them from harm of all kinds. How thoroughly this responsibility is observed and where libraries do encounter difficulties is at the center of this paper. A case study from the Bibliotheca Hertziana – Max Planck Institute for Art History, Rome, serves as starting point, leading to a review of the literature regarding emergency planning in libraries from the late 60ies of the 20th century to the present days. Furthermore, the paper presents results from a survey on emergency preparedness, conducted in spring of 2018 amongst national libraries worldwide. In light of the sobering findings, the paper offers possible measures to be taken in order to further emergency planning, thus protecting the written heritage of the world more adequately.

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Libraries and archives are the repositories for the records of a culture's existence.

These records reflect the scholarly and creative efforts of a civilization as well as its social and historical interaction.

They are a gift from the past to the future, collected in the hope that what we have thought, created, and discovered will be a source of pleasure and assistance for generations to come.

The preservation of these fragile and sometimes tenuous links

are the responsibility of those to whom their care has been given.

(Buchanan/Murray 1988: Introduction)

Abbreviations

AAR: America Academy in Rome

BSR: British School of Rome

CDNL: Conference of Directors of National Libraries

DAI: Deutsches Archäologisches Institut

DHI: Deutsches Historisches Institut in Rom

ICA: International Council on Archives

ICCROM: International Centre for the Study of the Preservation and Restoration of Cultural Property

ICOM: International Council of Museums

ICOMOS: International Council on Monuments and Sites

IFLA: International Federation of Library Associations and Institutions

ICRCPAL : Istituto centrale per il restauro e la conservazione del patrimonio archivistico e librario

KHI: Kunsthistorisches Institut, Florenz

PAC: IFLA Section for Preservation and Conservation

UN: United Nations

UNESCO: United Nations Educational, Scientific and Cultural Organization

1. Introduction

"The reasons for preparedness are self-evident, but resistance to emergency plans in museums — including drills, practice sessions, and staff training — has remained.

It's that familiar combination of avoidance and denial.

Nevertheless, emergency planning is a matter of common sense and responsibility."

(John Walsh, Director, The J. Paul Getty Museum)¹

My attention was drawn to this topic in a traditional way: by first-hand experience of a library emergency. The absence of preparedness in my own institution raised a personal awareness and inspired further research on emergencies and counter-measures. The problem is not new: we have witnessed numerous disasters, both natural and man-made, leaving a serious impact on libraries and other cultural institutions. The need to protect the world's written heritage seems more pressing than ever, and the obvious response is the crucial importance of libraries and librarians to engage in the field of emergency planning.

To delineate the limits of my study, the focus lies on the physical collections. Digital resources and IT concerns are mentioned only briefly, because although they are crucial for library work today, digital preservation is a different field and requires a different approach. It is, in fact, desirable for present and future library staff to engage in research on the state of preparedness for our growing digital heritage. There are several interesting projects going on, some of which are mentioned in Kahn's article on digital preservation (e.g. TRAC and DRAMBORA)² or on the website of UNESCO (PERSIST)³. The field is nevertheless too vast to include in my thesis.

Although climate change has a huge influence on one of the key threats to libraries – natural disasters – it is not possible to treat this topic here. For deeper insight into the effects of climate change, one can look at STORM, a Horizon 2020 project that brings together experts from different fields and different countries to work on methods to predict environmental changes and to develop strategies to counter threatening conditions for cultural heritage sites⁴.

This paper tries to give an overview on the theory and practice of emergency planning in libraries. After an account of the experience of an emergency (water infiltration) at my own workplace, which raised the awareness for the need of emergency planning in our staff, I go on to scan the literature on that topic, mainly through handbooks on disaster planning, starting at a specific time and place

¹ Dorge/Jones 1999: 10

² Gracy/Kahn 2011

³ https://unescopersist.org/about/ (URL: 14.05.2018)

⁴ http://www.storm-project.eu/ (URL: 15.05.2018)

in the history of library disasters: Florence 1966. Since a significant part of current advice is now available online, in open access publications or interactive tools, I give a short account of those sources. Early in the literature screening, I came across the survey on disaster planning in national libraries conducted by IFLA in 2004, and decided to do a follow-up survey, to learn about the present state of preparedness in the same target group. The presentation and analysis of that study will be the third part of this paper.

Aiming to understand the dynamics of this topic, which should be top priority for all libraries, I attempt to find internal and external, helpful and hindering preconditions, and measures perceived to be essential to implement effective risk management in the specific form of emergency planning. Looking at the literature and to the practices in national libraries, I try to characterize the current situation and to make suggestions for future developments.

2. Water in the middle of the night. Case study: Bibliotheca Hertziana, Rome

2.1. Emergency

It was 11:40 pm on May 19, 2017, when Fabio's phone rang for the first time. The night guards of the Bibliotheca Hertziana are instructed to call the technical director when weather conditions are bad, whether there are problems or not. Therefore, that first phone call was to report that it was raining heavily, but Simone, the night guard, had found nothing abnormal on his usual rounds of the building.

The Bibliotheca Hertziana – Max-Planck Institute for Art History occupies three interconnected buildings located on the Pincio Hill, in the city center of Rome, Italy. Two were built in the late sixteenth century (1581 and 1598) and ever since have been adapted and restored countless times. Those buildings are connected by a spectacular new building, inaugurated in 2013 after ten years of challenging construction, to replace a structure dating from the 1960s and declared unsafe by the local Fire Department in the 1990s. The Spanish architect Juan Navarro Baldeweg redesigned the space to be a modern, light-filled structure where scholars today can sense what the Institute was at the time of its foundation in 1913, and what the area had been long before Henriette Hertz, the founder of the Hertziana, first set foot in Rome.

Actually, beneath the book stacks in the basements there is more to explore: in the center of an ancient city of course the soil is interspersed with remains. In this case, ruins of the villa of Lucius Licinius Lucullus (ca. 60 BC) had been discovered during works on Palazzo Zuccari as early as 1910, but the construction of the new building enabled extensive access to the archaeology for the first time. In fact, the excavations under the auspices of the *Sovrintendenza Capitolina ai Beni Culturali* (Roman Authority for Cultural Heritage) are ongoing, and it has not yet been decided how to facilitate the access of experts and the public to an area that includes, among other things, a fountain complex (nymphaeum) and impressive mosaics.

Hence, the night guard has to cover an impressive and complex building assemblage spanning the epochs from Ancient to Renaissance to Modern: office spaces, large open reading rooms, stacks for approximately 320.000 books, technical facilities, and an infinite number of partially hidden staircases and study areas, below and above ground, on seven levels.

There had been small water damage over the years, but nothing remarkable had resulted to the collection, its users, or the building. Still, the heavy rainfall that night made Fabio nervous, so he asked Simone to check the electrical, heating and other units, and the basements. Around midnight

Fabio's phone rang again: "We have water in the second basement – it's coming from somewhere above! Books are soaked, and water is running across the shelves."

2.2. Response

One of the guards lives with his family in the building, so immediate help was fortunately available. In the first hours after the discovery, Simone, now with Andrea's help, began to remove the books from the affected area, while water was still dripping onto the stacks. Early the next morning the head librarian, the head of the institute's administration, and the library pages received calls informing them about the water infiltration. In addition, because a book restoration project was currently under way, a fully qualified restorer could be called as well. The head librarian answered his phone from Florence, where he had planned to spend the weekend. Not knowing what had happened precisely and how bad the damage was, Golo Maurer got on the next train to Rome and sent out an email to call for help.

Saturday, May 20, 2017, 10.09 am

Golo Maurer, to all members and employees of the institute, in German and Italian (as is usual):

Liebe Kolleginnen und Kollegen,

Bei einem Wassereinbruch heute Nacht ist eine große Zahl von Büchern im Keller überschwemmt worden. Darf ich alle bitten, die in Rom sind und können, in die Hertziana zu gehen um bei den Sicherungsarbeiten zu helfen. Bitte verbreiten Sie diesen Aufruf.

Danke!

Care colleghe, cari colleghi,

Questa notte si e verificato un allagamento in Hertziana. Alcuni centinaia di libri devono essere rimossi e trattati al più presto per poterli salvare. Prego tutti coloro che si trovano a Roma e possono di andare in Hertziana e partecipare all'operazione.

Per cortesia diffondete questo messaggio.

Grazie!

It was a beautiful sunny weekend, and many colleagues could be expected to have left the city for the beach or the countryside, but instead people started to come to the library almost immediately, shocked by the news and wanting to help, bringing their motivation and their electric fans from home. At this point, several fortunate elements came together, as we could see in hindsight. Only a few weeks earlier two book restorers had joined the library for a project to assess and restore our

rare book collection. Alessia and Lorenzo would turn out to be guardian angels and heroes — they came in on Saturday morning and at least one of them was always with the institute's staff throughout the following days, assessing damage, explaining what to do, showing others how to do it, teaching a staff of employees and volunteers in the shortest possible time how to distinguish different types of paper (with different needs in the drying process), and, above all, how to prioritize and not despair in the midst of 4.500 wet volumes.

The rainwater hit so many books due to a concatenation of mishaps and misfortunes. Heavy rain is not unusual in Rome, but normally it lasts for no more than 15 or 20 minutes. That night it poured for hours and finally the drainage system could not adequately dispose of the water, which started backing up through the pipes. The weak spot was a small, west-facing terrace on the second floor of the new building. There, due to building regulations, an outlet for extinguishing gases had been installed, and although several measures were taken to protect the exhaust flap, after hours of heavy rain, some water started to infiltrate and made its way down to the shelves in the second basement.⁵

Even worse, through that same air duct, water infiltrated an area on the first floor, where the rare book collection is stored. Fortunately, less than ten books were affected by water there, with only three showing significant, but not irreversible damage. Discovering this big flaw in what should be the secure storage area of a fundamental part of the collection led to a process of rethinking the location and environmental conditions for our rare and valuable books. This will result in moving the volumes to a different part of the building, where control of storage environment (temperature and relative humidity) will be easier and where there is no direct threat posed by terraces, pipes or electrical wires.

-

The new design includes an outlet for noxious gases, through which vapors, meant to extinguish fires in the second basement, would leave the building. Due to building regulations an existing outlet in a covered area was insufficient, so another one had to be added on the terrace. That air duct has an aluminum cover, designed especially to keep rain water from falling directly into the outlet. Above the air duct, there is also a glass awning to throw off rain. The terrace is about seven square meters in size, and is slightly inclined (1.18% pendency) towards a rain gutter along the front side (2.70 meters) which directs water into a drain with a ten-centimeter diameter. The same gutter, takes in water from two more areas, through other drain pipes (Ø10 cm), collecting precipitation from a total surface of 35 m². Again, for security reasons, the small terrace has an overflow drain pipe in one corner, which channels away water if it should start accumulating. Because the edge of the air duct is five centimeters higher than the terrace pavement, and with these multiple systems of protection in place, nobody anticipated a problem, because nobody thought the water could rise to a critical level, given the available outflow. With the drainage coming back up through the pipes, however, the water rose to the edge of the exhaust flap, and slowly starting infiltrating and running down along the air duct from the second floor (+6.80 m) to the second basement (-6 m), where it trickled out again, this time through the lower exhaust flap, directly onto the compact shelves that hold bound journals.

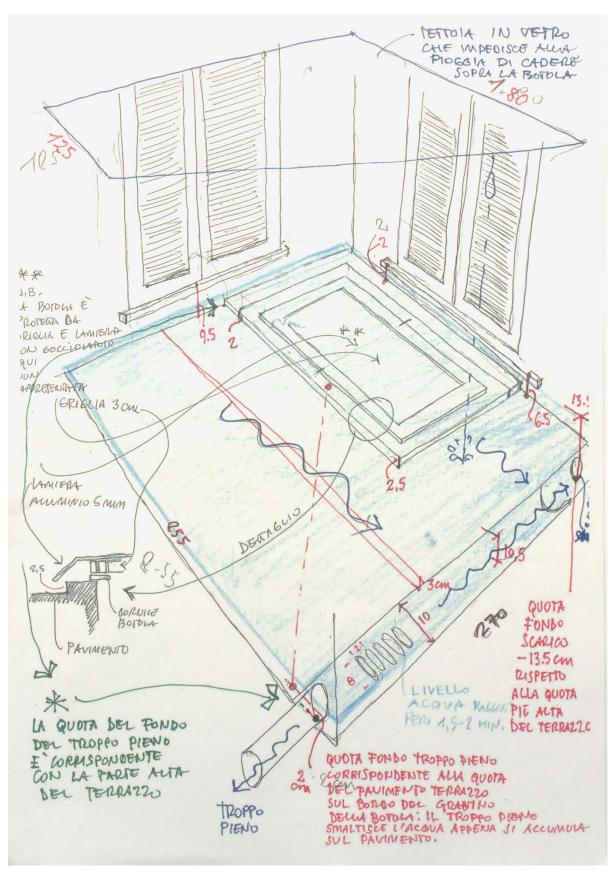


Figure 1: Sketch of the terrace on the 2° floor, by architect Enrico Da Gai (2017), part of the report for insurance.

The rectangular object on the ground is the exhaust flap through which the water infiltrated.

We were fortunate in several respects. With less vigilant guards, the infiltration might not have been discovered that soon, but maybe as late as Monday, when the library usually reopens to the public, with terrible consequences to the collection involved. The presence of the restorers, who knew what to do in an emergency, was fundamental. The willingness of staff to come in on an early-summer weekend made temporary solutions possible. And thanks to an unanticipated and inexplicably large supply of paper towels in stock, the first-responders had adequate first-aid supplies for the soaked volumes. Furthermore, due to a recent attempt to remodel the library entrance space for users and staff, we had huge tables as work space at our disposition, in a new reading space on the entrance level. Because those big tables are situated at the foot of a dramatic space that is open from the entrance to the fourth, and indirectly to the fifth floor, we had good air circulation, but almost no direct sunlight – perfect conditions for the salvage of wet books.





Chiusura straordinaria / Sonderschließung



A causa di un'infiltrazione d'acqua la biblioteca e la fototeca devono restare chiuse lunedì, 22 e martedì, 23 maggio. Ci scusiamo per il disagio.

Aufgrund eines Wasserschadens müssen Bibliothek und Fotothek am Montag, 22. und Dienstag, 23. Mai geschlossen bleiben. Wir bitten um Ihr Verständnis.

Figure 2: Special Newsletter by the Bibliotheca Hertziana, Mai 20, 2017 (Photo: Marieke von Bernstorff)

Since the unfortunate event had taken place on a Friday night and the library is closed to external users on weekends, we did not have to deal with that issue until Monday morning. Nevertheless, the notice of the unforeseen closing for the first days of the following week was announced on the website on Saturday evening and distributed through our newsletter.

Instructed by the restorers, our scholars, interns, librarians, fellows, retirees, staff members and their families, and even library users who had heard the news, spent all Saturday trying to get the situation under control. Of course, mistakes were made and the impressive picture used for the notification of the public shows one example: some book bindings eventually broke because of excessive interleaving or because the book was opened up too forcefully in the

attempt to fan it out. Moreover, time was lost on treating less dampened books, while completely soaked volumes sometimes sat in a corner, waiting to be salvaged. At the time, nobody realized that many of the paper towels bore a sticky substance to make them effective in a dispenser, but which

would remain on book pages and add more damage. Yet given the fact that nobody but the restorers had any experience in these matters, the outcome was positive. No less than 150 meters of wet books had been brought from the second basement to the entrance area, where an average of about 30 helpers, supervised and coordinated by the restorers, worked all day long. Books were disposed vertically on cardboard on the floor, and opened up; fans and dehumidifiers were found and put up everywhere, so the drying process could start immediately. The restorers contacted a specialized firm whose representative visited the library in the afternoon to assess the damage and – with the restorers, the head librarian and the technical director – plan the strategy for the next hours and days. The crucial first 48 hours would expire Sunday night. Until then, people at the Hertziana would try to do everything in their power to dry the books. The specialized company would pick up the damaged volumes Monday morning to treat them in their shops at Ciampino, outside Rome, at a facility described as a center for drying and disinfection.

After 8pm on Saturday night the director sent another email to members and staff, reporting on the day's events, sending a few pictures and asking for volunteers to indicate who could come in and help on the next day. In order to get an idea of available workforce quickly, staff sent an email with a time frame of availability on the subject line.

Sunday, May 21 was another beautiful summer day, and it brought more assistance: lots of people showed up to help, some for two hours before going to the beach, others for the day, and helpers included a mother who was visiting Rome in those days, boyfriends, girlfriends, partners, and children. The readiness to help was overwhelming and the cooperative work – to salvage what is indispensable for our daily work – might become a significant element of the institutional memory.

By Sunday night, every book that had been affected by water had been treated in some way. The restorer Alessia assessed and organized books for the pick-up scheduled for the next morning, in order of severity of damage: dry (to stay in-house), damp, and wet. The last helpers left the institute at 9pm to be back at 7am the following morning for the pack-out, when the people from *M.T.S. s.r.l.* – *Conservazione e Tutela Beni Culturali* arrived with boxes and started carrying our books out the door.

Monday, May 22

After a couple of hours, two temperature-controlled truckloads with a total of 144 boxes were driven away, without any indication of what could be saved. What we did not do, due to lack of time and means to coordinate such an enterprise, was to register the books that left the institute. Fortunately, this procedure turned out to be a minor oversight, since a very clearly defined area of the stacks had been hit, and we knew which range of shelf-marks was missing.

Obviously, despite the notification via newsletter and on the website, not all users had learned of the water infiltration and the emergency closure, so a number of scholars would show up at 9.30 am, as usual, only to be turned away after hearing the news.

Once the damaged books had been taken away and clean-up was done, most of the employees returned to their desks to take up where they had left their work before the weekend. By that time, it was clear that the on-going event could be a useful starting point for the thesis I had yet to write, so instead of going back to cataloguing I followed the technical staff around for two more days. Monday was mostly spent on structural and functional tests on the various building units, to assure that there was no damage in the pipes, the walls, the junctions, and to be certain that the only reason for the infiltration had, in fact, been the leak at the little terrace on the second floor. For these tests the technical director was joined by a group of construction workers, electricians and plumbers, who are in the building on a regular basis and know the structure well, and by the in-house architect, who guides all of the smaller and larger remodeling and restoration works in the Hertziana complex. Pipes were checked with a thin flexible tube camera that was led down the various drains to look for leaks. Walls were checked on that day, and for several days to come, with a thermo-camera to establish the presence and the amount of water that had infiltrated the structure and was now endangering the remaining books due to high humidity levels.

Upon analysis, several measures were taken. A constant monitoring of humidity was initiated in the various shelving spaces, and periodic measurements with a hygrometer were made directly on the books left closest to the affected area, because they were not considered humid or wet. In addition, various construction interventions were planned for execution over the next days and weeks.

Tuesday, May 23

In the second basement, the area primarily hit by the water infiltration, a temporary wall in plasterboard was erected to close off part of the stacks and protect the rest of the shelves during the necessary repair works. Over the following days the duct leading to the exhaust air flap was cleaned, an emergency ladder was installed to improve accessibility to it and a system of small,

inclined shelves was put up, which – in the unlikely event of the same scenario happening again – would divert water towards a drain in the wall and prevent it from reaching the bookshelves. On the terrace, an additional drain was installed to insure the removal of excessive water, instead of being allowed to build up on the terrace. In addition, the height of the exhaust air flap over the terrace pavement was raised.

To inform readers, staff prepared a website entry and information sheets about those groups of books that would be temporarily unavailable. The information was again added to the regular newsletter of June 6, 2017.

Wednesday, May 24

The library reopened to the public, while works in the basement and at the specialized facility in Ciampino continued through the following days and weeks. Patrons were understanding, and the missing portion of our holdings did not create immediate problems.

2.3. Recovery

June 7, 2017

On this date, *M.T.S.* sent the head librarian a first report on their intervention at the Bibliotheca Hertziana, describing the situation they found when they came to the library, citing humidity levels of the materials (between 15 and 30%, depending on the quantity of paper, the types of covers and the binding) and damage suffered by the books. Significant undulation, or warping of pages was noted. As their first step, the company recorded transportation of the volumes to their facilities to be put in an autoclave for dehumidification. After that first phase, samples would be taken to investigate the presence of active microorganisms, in which case there would be measures taken, according to the ICRCPAL standards. Target humidity for all treated paper would be 6-8%, and when that value was reached, books would be cleaned with a special vacuum cleaner, packed, and sent back to the library.

June 12, 2017

Along with the report by M.T.S., the head librarian sent out an email to all institute members in which he described the current situation and developments, a "preliminary report from the book hospital".

At that time, dehumidification was almost complete and mold treatment and disinfection could start. The head of M.T.S. had pointed out several times how the quick and determined intervention of restorers, staff, and members had played a significant role in keeping the overall damage surprisingly low. At that time, the estimate was a loss in the middle double digits. As it turned out later, the end-result was even better.

Directors of other Roman and Italian library and research institutions (KHI, AAR, BSR, DHI, DAI) had already offered their support in finding substitutes for the lost volumes (originals or reproductions), and as a particularly happy surprise, the library received a donation by a former member of the Bibliotheca Hertziana, who decided to give a rare book from his private collection. This gift was made to acknowledge the work of all the helpers on that weekend.

August 9 and 18, 2017

Adding another element to the list of fortunate circumstances, the circa 3.500 books which had been sent to the treatment facility came back to the Hertziana in the two-week period when the library is closed to the public every summer. Therefore, the challenging task of unpacking dozens of boxes, sorting the books according to their damage and further treatment, and putting the volumes back on the shelves, could be accomplished without disrupting the use of the library. The entrance area became once again the operational center, where library personnel and restorers divided the books in categories: those which were immediately sent to a bookbinding laboratory specializing in repair works, because they were in an unusable state (11), those which would be put back on the shelves as they were, because the damage did not compromise the use (869), those which would be put back on the shelves temporarily and taken out and sent to the bookbinder for repairs over the following weeks and months (196), those which could be repaired in-house (66) and the eight books that could not be salvaged and had to be replaced. Many books will bear signs of the event (undulation, staining), but are perfectly usable and will be a reminder of the event.

In a final email to the members of the institute the head librarian reported on the return of the books, distributed a list with the statistics the restorers had elaborated, along with some pictures, and once again expressed his gratitude to all the helpers, and especially to the library pages who managed to put the books back in the stacks in record time.

Although the dedication of the helpers had kept the damage, and therefore the costs, low, now that the "practical" part was over, a report and a request for special funding to cover the expenses for dehumidification, mold treatment/disinfection and new bindings had to be sent to the headquarters of the Max-Planck-Society in Munich. The money was granted and it fully covered the costs.

2.4. Lessons learned

Preparedness is key – we were extremely lucky to get away with the loss of so few books. Yet, luck is not a viable substitute for being prepared, for having an emergency plan to conserve the books that are our raison d'être. Once the library is built and the basic collection is set up, preservation and conservation of our holdings should be top priorities. Losing books or compromising the facilities that house them is losing our key concern. Our institution, as all libraries, museums and archives, needs to address the ever-present threat of emergencies. Luck, the limited nature of the disaster itself, the timely discovery, and the huge contribution of helpers ensured that damage was minimal. A high level of personal identification with and loyalty to the institution facilitated a sense of common responsibility in the volunteer work.

The event proved to be fortunate in another way: it was an eye-opener for an institution, which — like many others — was very comfortable in the belief that no major disaster could affect its well-being. After this experience, we are ready to form an emergency team, write and implement an emergency plan, and make sure that we do not depend on our luck the next time something goes wrong because, eventually, something will go wrong again.

The Bibliotheca Hertziana, with its small but important collection, in an important but small set of buildings, was shaken by a rather small event. How does an emergency impact institutions with larger and more diverse collections, bigger buildings, a more complicated bureaucratic apparatus, perhaps in an area threatened by natural disasters or war? Our experience was a useful warning that something more destructive could happen. It made us realize the importance of emergency planning for our core functions.

One does not have to go far back in time to find examples of major incidents in libraries and other cultural institutions: most of the literature cites the flood in Florence in 1966, with its tragic impact on the National Library, as a turning point for research in the field of preparedness and recovery. The next chapter will try to show how institutions learned and are still learning from the events: handbooks and guidelines are compiled, workshops and training sessions organized. Still, society as a whole and cultural institutions in particular continue to be caught by surprise by disaster: the 9/11 attacks (USA) in 2001, the destruction of the Buddhas of Bamiyan (Afghanistan) in 2001, the looting of the National Museum in Baghdad (Iraq) in 2003, the Indian Ocean Tsunami in 2004, Hurricane Katrina (USA) in 2005, the destruction of the Palmyra World Heritage site (Syria) in 2015, the hurricanes and wildfires that hit the USA in 2017 and 2018. The list is endless, yet preparedness for

many institutions is still not a matter of course. The following chapter will try to outline the resources for drawing up a guide for disaster planners, from the basic elements of an emergency plan to online tools that help in developing and implementing this important document.

3. How to prepare – and why.

3.1. What the literature tells us about emergency planning.

Although satisfied with the results of our labours we recognised that with foresight and planning our response would have been greatly improved.⁶

To avoid future catastrophes, the Swedish National Library has begun an initiative for a national preservation plan, where disaster planning has a central position.⁷

In taking the occurrence of a library disaster to the next step – the planned anticipation of future emergencies – this thesis rehearses a common scenario. In truth, more emergency plans have probably been generated after an "event" than one would wish, while the motivation to produce a plan in advance of its need is exceptional. Between the two extremes lies the literature, an enormous quantity of information in articles and books and now online, which needs to be evaluated and organized, at least provisionally, to assess the present state of research and potential action for the future. This should be an attempt of synthesis that will put the present status of emergency planning in context.

The 1996 fire at the City Library in Linkoping, Sweden was the trigger for the Scandinavians to consider disaster planning a priority in their developing national preservation plan. Long before, after big fires at the Klein Law Library in Philadelphia in 1972 and the Los Angeles Central Public Library in 1986, the American library community saw clearly the need to implement fire protection measures and to develop more successful strategies and techniques for emergency situations. Before these and other catastrophes in libraries around the globe, one disaster is cited in almost every survey of the subject as the turning point in management: the floods in Florence, Italy in 1966. According to Morris this event could be considered the "worst water disaster in modern history". In the introduction to the second edition of *An Ounce of Prevention* (1985/2002), the first handbook of its kind in Canada, the authors call the Florence flood "a pivotal point in disaster planning and recovery for archives, libraries and record centres, and indeed, the entire field of preservation. Response to the flood and recovery of the damaged collections of the Biblioteca Nazionale generated new thinking, collaborative approaches and a wealth of innovative advances that continue to be used and adapted worldwide." 9

⁶ McIntyre 1996: 130

⁷ Kahn ²2003: 17

⁸ Morris 1986: 57

⁹ Wellheiser/Scott 2002: 3

On November 4, 1966, after days of constant rain in the whole Tuscany region, the river Arno flooded the city of Florence, causing severe damage to buildings, art works and, at the National Library in the city center, approximately 1.3 million rare and irreplaceable printed volumes and innumerable manuscripts. Buchanan describes the disaster's impact:

Probably the greatest impetus for better planning and recovery procedures was the Florence Flood of 1966 when the whole cultural world was stunned at the loss and damage to materials. Conservators and volunteers flocked to Florence, Italy to help in the salvage effort. It was soon clear that better techniques for cleaning and drying books and manuscripts were required if, in the future, recovery was to be more successful at reducing major structural and aesthetic damage. Over the ensuing decade, fires and floods affected libraries in many parts of the world. Notable are those in which new conservation/preservation measures were undertaken or improved to ensure more successful recovery results.¹⁰

Had professionals and volunteers, but also the authorities, been better prepared and trained, many more volumes of the National Library could have been saved, and probably with less effort and expense. Lacking knowledge of the new procedures, experience and resources for proper communication and intervention, professionals and volunteers did their best for days, weeks, and months. A great part of the problem was that, according to Waters, salvaging techniques like refrigeration or vacuum freeze-drying were not yet common in Europe. Italy, like other countries, had no facilities and no experience with cold storage or vacuum systems. Waters, recounting his personal experience as a leading restorer for books in Florence, explains how the way books were removed from the flooded spaces and then dried in primitive manner caused significant post-recovery damage. This led to costly and time-consuming restoration, which is ongoing to this day. Learning from the mistakes that complicated the intervention after the flood, Italy underwent structural reforms. One major step was the creation of a more functional civil protection service that would serve the needs of the country's cultural heritage. At the same time, a training system for volunteers was created and implemented with many different areas of expertise. 12

The goal of this chapter is to survey the literature (printed and online) on disaster management and preparedness in libraries, and in some cases, similar institutions such as archives or museums. The leading research question for the extensive literature review is to determine the internal and external preconditions that can help or hinder responses, and to highlight what are perceived to be essential measures to implement effective risk management in libraries. Bearing this focus in mind,

¹⁰ Buchanan/Murray 1988: 58

¹¹ See Waters 1996: 238

¹² See https://www.ilpost.it/2016/11/04/alluvione-firenze-1966/ (URL: 07.04.2018)

we searched the literature for these key elements , and for other aspects that are considered essential to the process, according to some or all authors. After analyzing the material available, the next step will be to look at the reality of emergency planning, as it exists today. For this purpose, the survey we have conducted among national libraries worldwide should give up-to-date information on the state of preparedness and cooperation in an important if not exhaustive sample of these institutions.

Although the Florence flood marked a completely new era in dealing with disasters, it may be imprecise to consider it the starting point of emergency planning, as many authors do. Publications from the first ten to fifteen years after the flood do concentrate almost entirely on two topics: salvaging damaged library and archival materials, and discussing general conservation and preservation issues. Key terms like "environmental factors and standards for storage", "drying methods", "cleaning and disinfection", "first aid", "emergency care/treatment", and "mass treatment" are frequent, as are lively discussions among professionals about water-, fire- and smoke-detection and sprinkler systems, and the advantages and disadvantages of Halon gas as a new means of fire suppression. Nevertheless, the concept of "disaster planning" rarely appears in the literature of that period. Evidently, the needs of the moment (the "response") took precedence over thinking about future threats to the well-being of libraries. This attitude prevailed from 1966 until the mid-1980s when, within three years, Anderson, Wellheiser, Morris and Buchanan all published handbooks focused on planning and preparedness. These books were well received in their day and are still often cited.

An example of the kind of expertise that was prevalent in the early years are Peter Waters' *Procedures for salvage of water-damaged library materials* (1975, ²1979), which might be the most important volume published in that period. This thin, but fundamental manual provides, for the first time, precise instructions on how to remove, clean, freeze, and dry wet books or related materials. Many authors, like Morris, recommended the distribution of Water's work to those responsible for disaster response¹³. Professionals cite it frequently, as they do Hilda Bohem's *Disaster Prevention and Disaster Preparedness* of 1978. By the early 1980s, these two publications are referred to as the "old and new testaments of disaster planning" ¹⁴. Unlike Water's hands-on instructions and advice, Bohem's publication, appearing twelve years after the Florence disaster, is among the first books to take up and advocate for the elements of planning and preparedness in dealing with emergencies.

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¹³ See Morris 1986: 66-68

¹⁴ Fortson-Jones 1983: 30

In his contribution to the 1995 conference "Redefining Disasters: A Decade of Counter-Disaster Planning", McIntyre describes how the focal point of discussions had slowly shifted from the treatment of damaged materials (obviously the most pressing issue immediately after the disaster) to the planning aspect of salvage, that is, preparedness before the emergency strikes. He refers to his and others' experience, stating that in the early years (1960s and 1970s) they found themselves well skilled in conservation and treatment of wet books, but completely unprepared to manage the disaster situation itself. 15 Contingency planning, in his perception at the time of the conference, has developed over the years and become more prominent, or even the center of many publications and conferences. McIntyre believed that the library community was better equipped than previously, although he still missed "guidance and advice on preventing disaster occurring or limiting its effect, on which there is very little" 16. He believed that one of the main reasons for this lack of preventive measures was the general mindset reflecting the conviction that "it is not going to happen here", which seems to persist. For him, an important development was the tendency towards national and international cooperation and coordination. In this regard, he pointed out that, after years of institutional and regional collaboration, IFLA and ICA finally decided to include disaster control in their programs.

Several manuals on the topic were published in the 1990s and later. In 2002, Johanna Wellheiser and Jude Scott re-published the 1985 handbook An Ounce of Prevention: Integrated Disaster Planning for Archives, Libraries, and Record Centers (1985: Barton/Wellheiser). Also in 2002, in the aftermath of the 9/11 attacks, Miriam Kahn offered a revised edition of what may be the most accessible manual for the reading public, Disaster Response and Planning for Libraries, which was first published in 1997. Kahn subsequently authored many smaller publications on the topic, like a more recent article on preservation of digitized resources (2011). Camila Alire's Library Disaster Planning and Recovery Handbook (2000) gives a very concrete and personal insight in the way an institution (the Morgan Library at Colorado State University) dealt with a major disaster (a flood in 1997), by covering all facets of the event and offering "key recommendations" at the end of every chapter. The Getty Institute of Conservation in 1999 published Building an Emergency Plan: a Guide for Museums and other Cultural Institutions, with practical summaries and clear instructions and exercises that are well organized in "important questions to consider", "tasks" and "steps". Another fundamental online publication, the IFLA Disaster Preparedness and Planning by John McIlwaine and Marie-Thérèse Varlamoff, is the result of a survey, conducted by IFLA in 2004 among national libraries worldwide. Since one of the main complaints to come from the study was the need for

¹⁵ See McIntyre 1996: 130

¹⁶ McIntyre 1996: 132

models to help libraries with the development of an emergency plan, IFLA published a compact open access manual, which today is available in English, French, Spanish, Arabic and Czech. The recent survey, which will be described in Chapter 3, indicates that the publication's impact might not have been as big as hoped.

Among the most recent contributions to the topic is Emma Dadson's *Emergency Planning and Response for Libraries, Archives and Museums* (2012). Dadson reports from a London university research library, stating that its focus, over the last five years has shifted from protecting and salvaging the collections to concentrating more on the idea of "business continuity". Even though this concept comes from the commercial sector, it can be applied to libraries as well, the loss being measured not only in a national currency but also in the negative impacts on students and researchers. A business continuity plan develops parallel to the organizational structure of an institution in deciding what areas of service are most important to provide, and in determining how to restore services according to prioritization in four steps (within 1 day, within 3 days, within 7 days, and progressively after 7 days)¹⁷. Dadson also offers a number of case studies from 1994 to 2011, which suggest that the necessity of planning is not decreasing, but becoming more crucial than ever. The most recent publication I looked at is David Alexander's general introduction to emergency planning, *How to Write an Emergency Plan* (2016). His account covers large-scale events and national health crises and provides a chapter on cultural institutions, as well as on the international frameworks developed by the United Nations organization.¹⁸

Beyond the publications from Europe and North America, I found several articles reporting on surveys aiming to assess the state of preparedness in Ghana, India and Pakistan and the Philippines. The authors' work is based on research inspired by experiences from their region and the use of several of the publications mentioned above (Buchanan, Dadson, Kahn, McIlwaine, Ogden, Wellheiser/Scott). The articles dramatically illustrate the difficulties developing countries face in dealing with the challenges of infrastructure and funding, and they confirm the Western view that individual engagement does make a difference. These results, in my opinion, give unsatisfactory evidence of the responsibilities that institutions should accept for the collective heritage they conserve. Yet it may be a clear depiction of the reality that many libraries, and not only in developing countries, still endure.

¹⁷ See Dadson 2012: 196-201

¹⁸ See Alexander 2016: 237-240

3.2. It is good to have a plan.

The necessity of having a plan seems obvious, but it is nevertheless crucial to trace the impact that such a document can have on an institution. By reporting a disaster whose outcome was strongly influenced by an existing emergency plan, Morris and Buchanan both emphasize the importance of preparedness. In February 1978, a fire struck the Sir Sandford Fleming Building of the University of Toronto. Morris states that the Canadian university might have been the first institution of its kind to be prepared in that way: they had written a "Disaster Contingency Plan" in 1976, which was fundamental to salvage collections of the engineering library. Staff knew what to do, and commercial companies fulfilled the contracts for providing services and supplies that had been signed previously. More than 75% of the collection were saved, repaired and returned to the shelves. Buchanan in her report points out that fire officials involved in the Toronto fire had underlined how the successful response and recovery was closely connected to the existence of a "fine disaster plan" ¹⁹.

Many authors, discussing a library disaster after the fact, describe an emergency at their own library as the main impulse for recording their experiences and the lessons they have learned. By this means, they hope to help other institutions create a plan ahead of "their time/ turn". Nevertheless, while learning from others seems to be the core theme, the reality shows that listening to such accounts does not effectively promote the effect one would hope for. McIntyre reveals a degree of impatience with those who, after they experience a disaster, cry out for lessons to be learned, when in fact the community needs to create preventive measures, and better training²⁰. With dozens of handbooks available and training organized for those who want to engage, his frustration is understandable in 1995, and shared in 2018: National libraries cannot complain about a lack of models in 2004, when major manuals like Wellheiser/Scott or Kahn are available and as valid as they were when first published, and countless websites provide free information. Lack of models is not the problem.

It will never happen to us. Actually, it might.

No institution can be certain it will never experience a natural or man-made emergency. If most libraries are lucky enough to avoid devastating fires, disastrous floods or fatal terrorist attacks, minor destructive incidents most certainly will happen. As Barton and Wellheiser write: "Disaster contingency is founded on the premise that disasters can and will occur. No amount of precaution

¹⁹ Buchanan 1988: 59

²⁰ See McIntyre 1996: 132

can reduce this risk to zero."21 Awareness that an emergency could happen at any time, that a speedy

and efficient reaction will be essential for the outcome, and that preparedness will contribute to

organize the inevitable chaos, should lead to the obvious conclusion: Every institution needs to have

an emergency plan. Timely response is principally important for salvaging the collection, but also for

quickly resuming operations and service for the patrons.

Kahn writes that disaster response consists of the procedures and processes followed by individuals

appointed to respond to the unforeseen. They are trained to determine how best to recover the

damaged materials and how to initiate restoration, in a way that permits the business of a library to

go back to normal as soon as possible.²² With recovery procedures in place, appropriate decisions

and actions can be clearer and come sooner to those in charge. Problems that inevitably appear in

the emergency will be reduced, doubts minimized, and confusion lessened. A document drafted with

clear heads will be a useful compass in a turbulent situation.

Protecting against and preparing for losses: You will (probably) not be able to salvage everything.

According to Morris, risk management in general and planning in particular, are directed at

controlling losses²³: an emergency plan reduces the probability of a loss or the extent of the loss.

Moreover, such provisions are useful, when administrators have to consider replacement costs,

extra staff hours and insurance issues. Kahn proposes that having a plan might be the only way to

avoid total loss and perhaps offer the chance to rebuild and strengthen the institution. She goes so

far as to state that institutions without a plan, like libraries, archives and museums, have little or no

chance of survival when a serious emergency hits.²⁴ An emergency can happen anytime and

anywhere. Preparing an institution for such a situation means acknowledging the (un)certainty of

risks and taking responsibility for ones' collection.

3.3. The emergency plan: concepts and elements

3.3.1. Basic concepts

From the literature emerge various standard aspects of an emergency plan. For Anderson the

essential ingredients for the successful handling of an emergency situation are "an informed staff,

disaster supplies and planned procedures – in short, a Disaster Control Plan". 25

²¹ Wellheiser/Barton 1985: Introduction, uncounted page

²² See Kahn ²2003: 3

²³ See Morris 1986: 93

²⁴ See Kahn ²2003: IX

²⁵ Anderson 1985: 10

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The key tool is given many names: A Disaster Control Plan, an Emergency Plan, a Disaster Plan or Contingency Plan. It is the document that should contain all the necessary information needed by helpers from inside and outside an institution to respond in the most effective way to any kind of emergency. Alexander, in his 2016 *How to Write an Emergency Plan*, argues that the development of the plan involves the organization as a whole and that the outcome should not be definite, but is supposed to be dynamic and ever-changing.²⁶

Lindblom Patkus and Motlewski point out three characteristics a disaster plan has to have in order to be effective. It has to be comprehensive (planning for all types of emergencies and for both an immediate and a long-term response), it has to be simple (easy to follow, since in an emergency situation it is difficult to think clearly), and it has to be flexible (it is not possible to anticipate every detail, therefore the plan should be the basis for on-the-spot-creativity).²⁷

Updating, adaptation, continuous research and exchange

On this point, Lindblom Patkus/Motlewski, like Alexander and many others, highlight the need for creating the disaster plan as a "living document". ²⁸ There has to be continuous development on it and, maybe even more important, the document will be different for every institution. Kahn emphasized the need to adapt the instructions from her handbook to one's own institution. Morris encourages planning groups to use models in the planning process, but to include local references and thus make the plan their own. As much as the handbooks can help with guidelines, schemes and checklists they provide, there is no one plan for all, which an institution can just use "out of the can". Mansell points out that the guidelines her handbook provides should not be followed rigidly, but should inspire those involved to discuss the issues their particular institution faces. The document that such a planning process produces will be meaningful if it takes into account what local consultants have to add. ²⁹

In her widely appreciated 1988 handbook, Buchanan stresses the need for continuous research and discussion among all parties on an institutional level and across institutions. She encourages those in charge of collections to meet regularly to develop new strategies for the sake of the whole field. Contact with those from other libraries, museums and archives enables the home team to steer the process by testing new methods and sharing their findings. ³⁰

²⁶ See Alexander 2016: IX-X

²⁷ See Lindblom Patkus/Motylewski 1999: 152

²⁸ Lindblom Patkus/Motlewski 1999: 154

²⁹ See Mansell 1999: 1

See Malisell 1999. 1

³⁰ See Buchanan/Murray 1988: 61-62

<u>Planning Phases</u>

The procedure of emergency planning is usually divided into four phases (with a variation in wording in the second step): prevention – preparedness – response – recovery.³¹

Prevention includes all measures an institution can take to reduce to a minimum the risk their collection is exposed to on a daily basis. In the literature, "prevention" is the term of choice, whereas online sources almost exclusively use the term "mitigation". Both expressions describe activities to prevent emergencies from happening or to minimize their negative effects.

Response signifies the decisions and activities necessary to clean up after a disaster, from assessing the damage, to moving affected materials, to deciding about the appropriate techniques to clean and repair damaged volumes and much more.

Recovery describes the steps to be taken to "get back to normal" and reopen the facility to the public: processing, repair and replacement of the damaged material, renovation works in the building, insurance claims, and related matters. Kahn, Alire and others state that the last two phases, response and recovery, usually do not happen sequentially but simultaneously.³²

Mansell lists three elements of the process that are different from the others, two of which seem especially interesting. To the usual steps, she adds an initial phase of getting decision makers to agree on "terms of reference", assuring their commitment to the planning process. Then, at the end, she advises including a post-recovery phase, which consists of the submission of a formal report, debriefing and the collection of lessons learned, in the light of preparation for a future emergency.³³

On the following pages, the main aspects of emergency *preparedness* are outlined according to the essential literature, after which follows a description of the key elements of the written plan. Many examples for emergency plans of national libraries are available online, and selected pages from two of these plans, by the National Libraries of Brazil and South Africa, are attached in Appendix G, to give an idea of how these documents can be written. The structure of the plans is similar, although the composition and depth of planning differ strongly.

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³¹ Planning (Kahn ²2003 and others), Preparedness (Skepastianu 995), Protection (Buchanan/Murray 1988)

³² See Alire 2000: 11-12

³³ See Mansell 1999: 3

Chain of command

The literature describes a clear line of responsibilities or chain of command as an essential element for success in the planning and in the actual emergency. Ogden institutes the figure of the "disaster planner", one person in charge who is assisted by a team or committee. Anderson agrees that the team needs somebody in charge and underlines the necessity to work to strict guidelines, especially when there are untrained helpers on site in the response and recovery phase. In her experience, untrained helpers can be obstacles, so she insists on training, tours of the building and other special preparation for all staff. Along the same lines, Waters advocates briefing each worker before salvage operations begin, a step he insists is time well invested, even if it delays actual recovery activities.

Buchanan points out that even before starting the planning process, it is important to understand the structure of the organization, its management and staff, because the plan, in order to be accepted and implemented, has to follow established policies and procedures. Assigning authority and duties with that knowledge will make lines of responsibility and command easier to recognize and accept. Alexander states that the emergency plan should create a clear, unambiguous structure of decision-making, command, operations and the division of responsibility. Fortson-Jones adds that, in order to establish authority, it is important to look at capabilities and responsibilities in the daily work of staff. Kahn too mentions authority as a key element for the effectiveness of the plan. The person in charge guides the team in the planning process and the emergency situation. She or he also needs to have the power to order and pay for services and supplies, to decide on insurance, to hire temporary staff, rent temporary space, discuss the necessary steps with trustees or the board of directors, to assign the media spokesperson, and to declare a disaster situation in the first instance.

Risk assessment

In the (possibly institution-wide) risk assessment, the team carries out inquiries about environmental hazards and vulnerabilities of the buildings, the mechanical systems and the collections.³⁴ It is important to look at all potential hazards: geographic, climatic, structural/mechanical or organizational.³⁵ McIntyre adds an interesting thought on terminology that puts the focus of all disaster related activities on the element of risk. In his opinion, the term "disaster" carries a sense

³⁴ See Lindblom Patkus/Motylewski 1999: 150

³⁵ See Anderson/McIntyre 1985: 10

of inevitability and fatalism. Speaking of risks instead brings attention to a much earlier point in events and gives staff the power to influence the future.³⁶

Prioritization

Once all potential risks have been assessed, reduced or eliminated, it is necessary to set priorities for the library, in case it becomes necessary to choose immediately between dealing with one area or one collection ahead of another.³⁷ The most important step according to Anderson is to identify irreplaceable holdings. In doing so, the team has to keep in mind that clearly identifying extremely valuable items constitutes a security threat. Consequently, it is essential that information on those high-value holdings is distributed only to those who need to have access to that kind of information.

Lindblom Patkus/Motlewski propose four steps for setting priorities.³⁸ Human safety obviously comes first, followed by records and equipment, which are crucial to operation. In 1975, Waters stated that the most important thing to rescue was the card catalogue, whereas nowadays we might think of everything related to IT. Varlamoff, like others, stresses the need for backups of all essential records, which need to be kept off-site. An important example for the importance of keeping the data infrastructure safe can be found in the report of Sidney Eng, librarian in a college library close to Ground Zero, the area affected by the 9/11 attacks in New York City. For him, it was essential to provide service to students and staff, even while the college was closed in the weeks after the attacks. Keeping reliable information flowing, thus fulfilling his mission as information manager, was only possible thanks to technology and the specific arrangements of their IT operations.³⁹ Kahn expresses the same concept, focusing on continuation of business and the need to get back to normal as soon as possible. She cites the 1993 bombing of the World Trade Center as the moment in which businesses, and later on institutions, became aware of the necessity to prepare for disastrous events. Wall Street and financial institutions in general, began to create contingency plans to have data for users available in 72 hours, by having replication/mirroring sites in other locations. 40 She encourages libraries to follow these examples.

The third step in the prioritization should look at <u>collection salvage</u>, and the fourth and last priority, according to Lindblom Patkus/Motlewski, is building rehabilitation.

³⁶ See McIntyre 1996: 133

³⁷ See Morris 1986: 66-68

³⁸ See Lindblom Patkus/Motylewski 1999: 149-156

³⁹ See Eng 2002

⁴⁰ See Kahn ²2003: 86-87

Training

Once the written plan is in place, the literature advocates the training of staff to be able to put it in action. There may be two (or more) different levels of training intensity: the emergency team will have to know every part of the plan and should be able to lead helpers who do not have that kind of deep knowledge of the guidelines. Staff who are not on the emergency team nevertheless should participate in drills and should be familiar with the main elements of the plan. Apart from regular fire evacuation drills, which in most libraries have to be executed by law, staff need to know the building well, know about safety and security measures (e.g. doors that open or close automatically in case of an alarm; awareness that the loss of power supply means also loss of security systems and HVAC - heating, ventilation and air conditioning) and should be able to turn off electrical, water or gas lines, if this should become necessary. Especially in large and complex buildings, there should be at least one or two people in every area (floor, wing,..) familiar with the emergency plan and the first steps to be taken, so they can direct others.

Coordinated training with the local fire department, the police and civil protection allows these first responders to know the building, the staff and the plan. Those agencies can also help in setting up bigger training events together with conservation experts, where staff can learn from hands-on demonstrations, for example how to salvage burned or water-soaked books. Events like these are better organized within a local or regional network, so more than one institution can profit from them.

Training has to be done regularly, so that following the guidelines, applying salvage techniques and working with the materials available will become easy and natural to the helpers. In an emergency situation the stress will take its toll, and the better trained the staff is, the better it will handle the crisis under pressure.

3.3.2. Key elements

The written plan will probably exist in different versions for insurance and safety reasons that depend on the amounts and levels of sensitive data to be distributed. Copies of all parts of the plan should be distributed to the relevant staff on- and off-site.

Contact lists and supply register

All authors maintain that an essential part of the written emergency plan consists of various up-todate contact lists. They stress that phone numbers of all members of the emergency team need to be available to form a work force. Contact information of administrators and decision makers must be included. It is recommended to have a list of staff who, even though not part of the core emergency team, would be willing to be contacted in case of emergency. The literature encourages that professional services and experts be listed according to their field of expertise and the services they offer (transportation, freezing, paper conservation). Ideally, the library has already made contact with those firms and has written contracts for their assistance. Another element of the emergency plan is a list of supplies and tools, and their location in the building, accompanied by a list of sources for those materials, in case they are being used up during an intervention.

Accounting system

According to Morris, it has proved very useful to set up a dedicated accounting system for any emergency situation. This makes all subsequent steps, including dealing with administration and insurance, much easier, and funds can be directed where they are needed. That system makes expenses, donations and extra funding easily traceable and manageable. Basic procedures and information about this bookkeeping system should be written down in the plan, whereas the specifics need to be known only to personnel from accounting.

Recovery Instructions

Buchanan explains that preventive measures, as well as recovery procedures should be outlined in the document. She proposes a three-step system: an *Emergency Information Sheet* (one page, easy to use, listing the immediate and correct steps to take for collection emergencies), a second document, the *Disaster Response Instructions and Plans* (to advise management and the head of disaster response on the immediate steps for reaction to disaster) and, as the most extensive document, the *Disaster Recovery Instructions and Plans*. These would be the largest and most carefully prepared guidelines, explaining priorities, techniques for salvaging, services and methods. Fortson-Jones recommends a "plan of action", expressed in simple language with enough details that no additional research will be needed under pressure. Furthermore, appendices for specific topics should be added. Informative sheets showing the physical aspects of the building, like a floor plan and the location of fire doors or main switches should be available.

Supplies

Apart from the written guidelines, "practical" materials need to be prepared and maintained to be ready for use in case of emergency. The Emergency Kit/Box is a collection of supplies for first-aid to damaged material. Handbooks and various internet sites provide checklists for these materials, which include everything from mops and buckets to safety gear for staff, waterproof pens and spare batteries for flashlights. One person from the emergency team should be responsible for regularly checking on well-functioning and expiration dates. Dadson offers an especially extensive list of

supplies, organized by the various scenarios: the immediate response kit, the equipment to deal with

damaged items, the safety equipment, and additional equipment. 41

<u>Documentation</u>

Dadson suggests the compilation of an incident log, where actions and decisions made in the

emergency situation are recorded. This has a double advantage in the time after the event: it is

easier to negotiate with insurance, if a time line is recorded and facts and arguments can be retraced.

When the emergency has passed, it will be useful for reviewing the performance and the plan.⁴²

Communication

The literature makes it clear that the bigger and the more influential a library is, the more important

communication becomes, but even for a small local library, it is advisable to be prepared for these

concerns. Alire points out how she was able to deal with the media when a flood hit her library in

Colorado in 1997, only because she had previously received training by the American Library

Association program LAN (Library Advocacy Now). Kahn recommends having a "communications

portion of the plan", where rules are set for dealing with the media, even though they are not the

only audience who need attention. She points out the need for communication with employees,

with suppliers and customers, patrons or clients, and with the general public. All need to be informed

on a regular basis on the nature of the disaster and the progress dealing with it to assure listeners

that things are under control, and also to avoid the spreading of misinformation. Ideally, there is one

spokesperson (and a substitute) for the whole institution. A basic press release for the public should

be prepared, as well as a script for staff who can be caught off guard by journalists seeking firsthand

information after a disaster. Although the content of these communications will have to be written

and adjusted to a concrete situation, preparing templates and knowing who will be in charge will

help a lot, especially when administrators are busy.

Any emergency puts stress on the employees. Communicating regularly and in a positive way with

staff is essential for the library to get through that difficult time, as Bohem writes in her 1978

handbook. She proposes that the head of operations (emergency team leader, head librarian) gather

all members of the DAT (Disaster Action Team) at least once a day to discuss accomplishments and

strategy. These meetings can help morale, show appreciation, and review the work that has been

done, before outlining the next necessary steps. 43 If not all of staff is involved in the emergency

⁴¹ See Dadson 2012: 163-168

⁴² See Dadson 2012: 174-175

⁴³ See Bohem 1978: 15

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response and recovery, it is necessary to keep those who are not on site informed. Communication is easy if the disaster is small and does not involve IT or electrical supplies. The emergency plan nevertheless needs to have a section on basic steps to undertake when there is no internet or phone service.

Alexander points out that messages to the public and mass media need to be clear, concise and univocal and that emergency planning should take account, and make use of social media. This is for many libraries no longer new, as they are already represented on Twitter and Facebook. Still, it will be helpful to have thought about these means of communication beforehand and find ways to use them most effectively in case of emergency.

3.4. The stakeholders

In the event of an emergency, a head librarian or administrator suddenly has to interact with different groups of people. Having a clear picture of who has what kind of influence and interests, and what is at stake in dealing with institutional superiors, contractors, insurances, patrons and staff, helps in addressing the chaos which any emergency provokes in its initial phase.

Control and collaboration

One of the essential pieces of advice many of the handbooks offer is to ask for and accept help from outside where it is sensible, but to stay in control. Library administrators and staff know more about their library than anybody else does. First responders, technicians and specialists in various fields might have to make the decisions at the beginning, when security of the building has to be assessed. Administration and insurance officers might confront the library with their own set of regulations. Still, wherever it is possible, "library people" have to insist on being part of meetings and decisions. In order to assure that kind of participation, it is important to build a network across the parent institution, with other similar institutions, with first responders, with contractors and all kinds of services that could be useful in an emergency. Networking outside the institution will change the way library staff is perceived and received in the actual emergency, and this can influence the fortunes of a library experiencing a disaster.

Excursus: Emergency Networks, two examples (UK and Germany)

Regional emergency networks can facilitate the organization of trainings and high impact events like simulations, where staff can see what an emergency situation looks like and what has to be done. Since the 1990s, the library, museum and archive communities in many countries have started to build such networks. Some are "unofficial", based only on personal connections between staff from different institutions, some have written contracts. Matthews reports on two important official networks in the UK⁴⁴: REDS (Regional Emergencies and Disaster Squad), born in 1991 in the East Midlands region, with the main task of coordinating response and specialist support to their subscribers. The network provides members with planning tools, training and material for emergency intervention. ⁴⁵ Another UK network is the M25 Consortium of Academic Libraries, Disaster Management Group. The management group, according to the website, is no longer active, but the M25 homepage provides templates for disaster control and IT preparedness, and information about mutual support agreements. ⁴⁶

In 2001, the German website *Forum Bestandserhaltung*⁴⁷ went online, a rich platform for preservation topics, providing contact addresses, information on current projects, new findings from research and developments in the field, as well as literature suggestions for German libraries and archives. The forum included a large section on regional emergency networks, listing 18 active groups. Unfortunately, due to insufficient funding, the website was frozen in 2014, and since December 31, 2017, is no longer available at all. Access to content is possible through the digital archive *Wayback Machine*, (captured 11.09.2017; a 30.10.2017 capture is already incomplete)⁴⁸. Another website concerning emergency networks, *notfallverbund.de*⁴⁹ is similarly unusable, with a surface containing mostly empty links, but offering a list of the 38 networks that seem to be active currently, covering 48 cities/communities throughout the country. Many of these networks have their own website and give interesting insight into their activities⁵⁰. Networks collaborate with the local fire department and collectively fund emergency supplies, including large-scale devices like

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⁴⁴ See Matthews/Smith/Knowles 2009: 21-22

⁴⁵ Unfortunately the correspondent website https://www.emms.org.uk/ (URL: 10.05.2018) does not provide more extensive information.

⁴⁶ https://www.m25lib.ac.uk/m25-resources-and-activities/disaster-recovery/ (URL: 10.05.2018)

⁴⁷ http://forum-bestandserhaltung.de/ (URL: 10.05.2018)

⁴⁸https://web.archive.org/web/20170911222936/http://forum-bestandserhaltung.de/(URL: 10.05.2018)

⁴⁹ http://notfallverbund.de/ (URL: 10.05.2018)

⁵⁰ For example: https://www.slub-dresden.de/ueber-uns/bestandserhaltung/notfallverbund-dresden/ and https://amuc.hypotheses.org/category/themen/notfallverbund (both URL: 14.05.2018)

emergency trucks or an inflatable salvaging slide, which was developed by staff from the Gottfried Wilhelm Leibniz Library in Hannover. ⁵¹ The increase of regional networks, from 18 in 2014 to 28 in 2018, is impressive and might be a delayed reaction to three major disasters Germany has suffered in the last 15 years: the floods of the river Elbe in 2002, the fire in the Herzogin Anna Amalia Bibliothek in Weimar in 2004 and the collapse of the City Archive of Cologne in 2009. The awareness of collaborative efforts to keep librarian and archival heritage safe is therefore very high, as can be seen in numerous training events for professionals working in the field. A video, showing such a practical study day, with many opportunities for hands-on learning, is available online ⁵². Important activities in the field of preservation are undertaken through the *KEK – Koordinierungsstelle für die Erhaltung des schriftlichen Kulturguts* (= Coordination Office for the Preservation of the Written Cultural Heritage) ⁵³. This federal initiative funds concrete projects like mass deacidification, rare book restoration, but also the development of emergency networks (core area in 2012) and is advocating on a political level on behalf of libraries and archives.

<u>Internal experts and outside consultants</u>

The core group of the whole process is of course the emergency team — those from staff, who volunteer to get involved in the planning phase and to take on responsibility and engage actively if an emergency should actually occur. Writing an emergency plan means doing research about one's own library, assessing the state of the collection, addressing conservation issues, talking about building safety, and much more. These steps help the members of the emergency team to know their institution better, and can lead to the implementation of a broader conservation program at a library. Efforts to work on conservation and preservation of the collections on an ongoing basis can generate administrative support, if library staff succeed in clearly demonstrating the advantages of preparedness and in showing that "the old adage that 'an ounce of prevention is worth a pound of cure' is never more true than in the case of library and archival disaster planning and prevention." ⁵⁴

Bohem points out the importance of informing the entire institution about the planning process, in order to get the most understanding and support along the way. The work of the Disaster Preparedness Committee should be explained to staff who are not involved, in order to encourage cooperation. 55 Investigations into procedures, questions about organizational and structural details

⁵¹ See Hülsmann 2010

⁵² https://www.youtube.com/watch?v=M3nuhmBP-PM (URL: 10.05.2018)

⁵³ http://kek-spk.de/home/ (URL: 10.05.2018)

⁵⁴ Buchanan/Murray 1988: 35

⁵⁵ See Bohem 1978: 9

might be perceived as a threat by staff who do not understand the goal of the exercise: finding flaws to eliminate them and make the library safer and better prepared for any event. Bohem therefore recommends working on good internal relations to generate awareness and willingness to assist in case of emergency.

Waters, in describing the components of what he calls the Salvage Team clearly advocates the concept of active collaboration of all parts of the institution. For him, the team leader has to be a person with practical experience with disaster, from either inside or outside the library. The team itself needs to come from all working areas: librarians and archivists, conservators, building maintenance officers, electricians, plumbers, carpenters, chemists, and at least one person familiar with national and local resources. Alexander agrees, pointing out that emergency planning is a multidisciplinary process that involves diverse professions and disciplines. Including as many different sectors as possible insures broad acceptance and makes the plan more complete and effective.⁵⁶ Bringing in participants from all departments of the library helps to give the plan the best in support and expertise, and it includes people who do not usually have conservation and emergency concerns on their daily agenda. Increased staff knowledge and awareness are two priceless results of this kind of involvement.⁵⁷ The fact that more people know about basic preservation and safety issues raises awareness and makes it more likely that risks will be recognized and eliminated before they can generate problems. In this process, library staff might come to the limits of their professional knowledge, however, and many authors highlight the need for outside consultants, for the development of the plan as well as for the actual emergency situation. Assistance from knowledgeable consultants can help in risk assessment, prioritization of the collections, and the planning of steps for prevention, but it is especially valuable as a stress relief for an emotionally involved and often overwhelmed staff in the chaotic first hours and days after a disaster.

For Bohem the planning phase is essential to prepare everybody for their role in the event of an emergency. She reminds her readers that simply calling upon people to help in the emergency situation is not enough. Helpers need to be educated and trained about salvage procedures and, for example, to understand considerations about outcomes and costs of salvaging versus discarding damaged materials. Skepastianu encourages libraries to educate their staff, connect with other libraries and associations, and seek cooperation. Investing time and resources in attending events like disaster planning workshops and exercises, participating in interest groups and getting to know

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⁵⁶ See Alexander 2016

⁵⁷ See Fortson-Jones 1983: 31

⁵⁸ See Bohem 1978: 4

others from the field can be essential in moments of need. Her focus is on the support IFLA can give through workshops and publications, but it is clear that the willingness of every single library to get involved is fundamental to the impact and effectiveness of these opportunities. ⁵⁹

Institutional support

While it is essential to have a committed team who assists the person in charge with the development, writing and implementation of the emergency plan, one element that emerges clearly from the contribution of Lindblom Patkus and Motylewski is that it is even more important to have support from the higher levels in the complex enterprise of emergency planning. ⁶⁰ Buchanan lists "committed management" among the essential elements for a satisfactory emergency recovery ⁶¹ and states that success is strongly linked to administrative endorsement for making the task a priority. ⁶² Surprisingly enough, apart from the above-mentioned references, there are few comments on the specific topic of institutional support in the literature. The majority of authors do mention it only peripherally. Whenever staff gets to speak, the importance of support from management and administration, and the frustration that comes from the absence of such backing is obvious. This seems to indicate a significant gap between the reality of people who are active in the preparation of emergency plans, and those who write about the topic in a more theoretical way (even though most of them have personal experience with an emergency).

Non-prioritization by management, resulting in the lack of staff and funding to work on emergency planning, emerges as one of the main reasons for the absence of a disaster plan in an institution from a survey Matthews conducted among libraries, archives and museums in the United Kingdom in 2005.⁶³ The following citations are drawn from interviews with employees:

There is a lack of senior support for the work, despite my stressing the importance of DCP [= Disaster Control Plan]. Without such support, progress is limited.⁶⁴

Despite repeated request for additional funding for disaster management support, disaster planning is not considered important by the senior management team.⁶⁵

⁵⁹ See Skepastianu 1995: 4

⁶⁰ See Lindblom Patkus/Motylewski 1999: 149

⁶¹ See Buchanan 1999: 191-195

⁶² See Buchanan/Murray 1988: 8

⁶³ Matthews/Smith/Knowles 2009

⁶⁴ Matthews/Smith/Knowles 2009: 111

⁶⁵ Matthews/Smith/Knowles 2009: 113

I was given the job of drawing up the disaster plan in 2000. However, having completed the plan my supervisor just left it in their in-tray and ignored it. As a result is has never been implemented.⁶⁶

What's needed is buy-in at the highest possible level in the organization ... In theory a disaster plan is everyone's responsibility but in practice it ends up falling on the conservation/preservation side of the house, which traditionally tends not to be of the highest grade in organisational terms, and therefore don't have the weight to make things happen.⁶⁷

As far as time is concerned, it is not that anyone disagrees with devoting substantial time to it as a valuable investment, it's just that we are so overloaded with other tasks that have to be accomplished within a time limit, and so those that may not become necessary sometimes are pushed into a lower place on the priority table. 68

These are just a few examples for what seems to be an obvious problem of prioritization in libraries and similar institutions. It is stunning, how indifference to the importance of emergency planning is still present among library management. As we will see in the analysis of the survey among national libraries worldwide, even in institutions that are essential for preserving a nation's cultural heritage, the commitment to preparedness is still surprisingly low.

A positive example for organizational structures and institutional support is reported by Fullerton, in his 2004 article on *Disaster Preparedness at the National Library of Australia* 69. After suffering from a fire in 1985, which hit the national library unprepared, measures were taken immediately to prepare for future emergencies. The Emergency Planning Committee consists of senior officers and other key personnel, and reports directly to the Director General. This kind of high-ranking authority gives the committee the means to look strategically at the risks the library faces and to make influential decisions. One could see a problem here: while the support from decision makers is fundamental for these activities, putting the preparation and implementation of an emergency plan completely in the hands of senior and high-ranking officers works against the credo that staff from all parts of the institution should be involved. Decisions, changes, new rules, drills could all be perceived as "dictated from above" and thus provoke a reaction contrary to the desired "communitarian" approach.

Clarke, in his contribution to the previously cited Sydney conference⁷⁰ identifies an interesting gap in the handling of training and planning in institutions like archives, museums and libraries. He refers

⁶⁶ Matthews/Smith/Knowles 2009: 111

⁶⁷ Matthews/Smith/Knowles 2009: 119-120

⁶⁸ Matthews/Smith/Knowles 2009: 114

⁶⁹ See Fullerton 2004

⁷⁰ Howell/Mansell/Roubos-Bennett 1996

to personal experience in offering workshops and states that organizations often are willing to send staff to workshops, but do not go further by instituting a planning team or involving senior staff.⁷¹

start to workshops, but do not go further by instituting a planning team of involving semor start.

Instead of dedicating a portion of working hours in the weeks after receiving such training, staff will

not consolidate the newly gained knowledge, and planning continues (or not) as it previously did.

Like Fullerton, Clarke also cites an example in which the involvement of senior staff and management

demonstrates that the importance of emergency planning has been acknowledged by the decision

makers:

The talk was organised by the Director [...] who played a major role in bringing his staff together, along

with representatives from Civil Defence and Auckland City Council, and attended the workshop

himself. When designing their contingency plan the director agreed to be responsible for policy and

finance, while conservation staff, security, and building management will contribute to their section

of the plan.72

This kind of active support from senior management encourages the success of emergency planning,

and staff training without such operative contribution from management levels is of limited use.

Varlamoff stresses the need to invest part of the institution's budget in the planning process,

granting funds and working hours. Only if that kind of practical support is guaranteed, the planning

team can invest themselves into the completion of the task without worrying about pushback or lack

of resources. 73

Having gone through the extensive general writings regarding emergency planning, the following

pages present a selection of more specific sources and tools from the many that exist on the World

Wide Web, including one application for smartphones.

3.5. Emergency Planning in the Internet Era

Online Emergency Plans, Disaster Planning Tools, and Resources

Many institutions make their plans available online, either in a full version (with sensitive data

blackened) or abridged, as webpages or in PDF/Word format. The length varies widely, from less

than ten to almost 100 pages for a single plan. Whether a short or a long document, those that I

could analyze all contain the key elements (contact lists, lists of supplies, recovery instructions) and

⁷¹ Clarke 1996: 31

⁷² Clarke 1996: 31

Clarke 1990. 51

⁷³ See Varlamoff 2004: 145

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are composed following the main steps (prevention, preparedness, response, and recovery), even where different priorities are clearly visible. Find examples in Appendix G.

CoOL – Conservation Online⁷⁴ is a platform operated by the Foundation of the American Institute of Conservation. It provides an extensive collection of links to resources from the various fields of conservation, including disaster preparedness and response. Case studies and personal accounts of disaster response fill the page, as well as literature recommendations and short descriptions of the services of commercial companies. Two very helpful components on the site are its access to about 20 emergency plans, mainly from university libraries across the US, and its lists of services, arranged by topics like Data Recovery Services/Data Disaster Prevention, Disaster and Emergency Response Services, Storage, and general suppliers. The website functions through contributions of money and of content by people active in the field. Some of the links provided are no longer active, but the majority are. In the section for Disaster Mitigation Planning Assistance, one finds still more sample plans and contacts to major reference points for advice in the planning process.

Connecting to Collections Care⁷⁵ is an online community that provides resources on diverse topics, including risk management and emergency preparedness. The website offers publications for download, information on funding, free webinars, as well as the publication series *Conserv O Gram*, a collection of concise fact sheets and checklists with four-to-six-page summaries of topics like fire safety self-inspection⁷⁶, salvage of paper based collections or salvage of objects collections.

ALA – American Library Association⁷⁷

The ALA LibGuide on Library Disaster Preparedness and Response offers fact sheets for download (some of the topics: health and safety, book salvaging, a WorldCat reading list on Disaster Planning), emergency phone numbers, and links to institutions (e.g. Blue Shield International and FEMA – Federal Emergency Management Agency) and companies. Very useful is a list of training opportunities (workshops and webinars), and suggested readings, as well as PDF and Word downloads of a template for a Pocket Response Plan.

⁷⁴ http://cool.conservation-us.org/topics.html (URL: 01.05.2018)

⁷⁵ https://www.connectingtocollections.org/ (URL 04.05.2018)

⁷⁶ http://www.nps.gov/museum/publications/conserveogram/02-23.pdf (URL: 04.05.2018)

⁷⁷ http://libguides.ala.org/disaster (URL: 01.05.2018)

IFLA-PAC

The *IFLA Core Activity on Preservation and Conservation (PAC)*, created in 1984, works on issues of preservation and initiates worldwide cooperation for the preservation of library materials. Its goal is "to ensure that library and archive materials, published and unpublished, in all formats, will be preserved in accessible form for as long as possible"⁷⁸. Currently, the IFLA website lists 16 PAC centers in seven regions worldwide⁷⁹. Each center is independent and responsible for a designated geographical area. Typically, the PAC center is located at the country's National Library, which functions as the base for activities in outreach and training.

The IFLA-PAC website provides useful links to the different areas of the field, along with their own publications, many of which are available online. *International Preservation News*⁸⁰, a journal that was published by IFLA three times a year between September 1987 and December 2013, is a valuable source for case studies on emergencies as well as for best practices in planning. Unfortunately, this resource is no longer published, but most of the issues can be downloaded from the website. The same is true for the *International Preservation Issues*⁸¹ (1998-2006), a series of manuals about standards in preservation and conservation (e.g. *IFLA Disaster Preparedness and Planning: A Brief Manual*, 2006⁸² or *IFLA Principles for the Care and Handling of Library Material*, 1998⁸³).

In August 2015, IFLA created the *Risk Register for Documentary Heritage*. ⁸⁴ This initiative aims at raising awareness for the preservation, conservation, and safeguarding of documentary heritage (of any format) worldwide. Similar registers do exist for museums (by ICOM: The Red List, classifying the endangered categories of archaeological objects or works of art) ⁸⁵ and monuments (by ICOMOS: aiming to identify threatened heritage places, monuments and sites) ⁸⁶. Institutions, organizations and individuals holding unique documentary heritage collections are encouraged to register their collections with the Risk Register. Through the Risk Register, IFLA gathers data in order to be able to provide adequate support in emergency situations, thus increasing the probability of survival of unique documentary heritage. Information like contacts and geospatial data, strictly accessible only

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⁷⁸ https://www.ifla.org/pac (URL: 03.05.2018)

⁷⁹ https://www.ifla.org/node/1244 (URL: 03.05.2018)

⁸⁰ https://www.ifla.org/publications/international-preservation-news (URL: 12.05.2018)

⁸¹ https://www.ifla.org/publications/international-preservation-issues (URL: 03.05.3018)

⁸² https://www.ifla.org/publications/node/8068 (URL: 03.05.3018)

⁸³ https://www.ifla.org/files/assets/pac/ipi/pchlm.pdf (URL: 03.05.3018)

⁸⁴ https://www.ifla.org/risk-register (URL: 03.05.2018)

⁸⁵ http://icom.museum/programmes/fighting-illicit-traffic/red-list/ (URL: 03.05.2018)

⁸⁶ https://www.icomos.org/risk/ (URL: 03.05.2018)

through IFLA Headquarters, in case of need, is shared with UNESCO and the organizational partners of the International Committee of the Blue Shield.

The Museum of London provides the e-learning tool Introduction to Emergency Planning.⁸⁷ It is available for free and consists of five sections with explanations of the core aspects of emergency planning, and short quizzes at the end. Whereas this is an easy way for a first contact with terms and concepts, this tool is not suited to give deeper knowledge or practical instructions for the development of an emergency plan.

More useful sources for guidelines, links and additional material are the rich online pages of the Library of Congress Preservation Directorate⁸⁸ with sub-sections on Emergency Management and Risk Management, organized along the known steps of preparedness, response and recovery, including training opportunities, a glossary, a bibliography and practical videos on workflows.

Another high impact website is offered by the **Northeast Document Conservation Center (NEDCC)**⁸⁹, which prominently displays a 24/7 Collections Emergency Hotline⁹⁰, and provides assistance across the USA. Perhaps the most important resource the NEDCC offers is *dPlan - The Online Disaster-Planning Tool for Cultural and Civic Institutions*⁹¹. Entering data into the online template, it is possible to create a personalized disaster plan for an institution. After getting to know the tool through a demo version, one can choose between *dPlan in Depth* (comprehensive plan) or *dPlan Lite* (only most important fields), from which the completed forms can be printed. More than one person can work on the plan, progress can be saved, and the work picked up again at any given moment. The website itself is relatively simple, although outdated in design, and system changes in 2015 (due to security issues) make downloading the file rather complicated, but it remains a viable and helpful tool for the creation of a disaster plan.

SiLK - Guidelines for the protection of cultural property⁹²

The SiLK Guidelines (the acronym stems from the initials of the German name *SicherheitsLeitfaden Kulturgut*) are a website and interactive tool designed to help cultural institutions assess potential risks to their buildings and collections. It is available for free and parts of it have been translated into English. The topics include: General Security Management, Fire, Flood, Theft, Vandalism,

⁸⁷ https://www.museumoflondon.org.uk/Resources/e-learning/emergency-planning-tool/index.html (URL: 11.05.2018)

⁸⁸ http://www.loc.gov/preservation/ (URL: 03.05.2018)

⁸⁹ https://www.nedcc.org/ (URL: 03.05.2018)

⁹⁰ https://www.nedcc.org/free-resources/disaster-assistance/emergency-phone-assistance (URL: 03.05.2018)

⁹¹ http://www.dplan.org/default.asp (URL: 03.05.2018)

⁹² http://www.konferenz-kultur.de/SLF/index1.php?lang=de (URL: 01.05.2018)

Accidents/Malfunctions, Deterioration/Wear and Tear, Climate, Light, Pests and Mold, Pollutants, Severe Weather, Earthquakes and Violence. The site offers an introduction to each topic, a questionnaire for self-assessment and a so-called "knowledge base", which contains bibliography and guidelines, (German) laws and standards, reference material and links. Filling out the questionnaire gives the user feedback through a "traffic light"-system: green, if the situation seems to be well adjusted, yellow, if the test detected threats and red, if the minimum standard is not reached. In the last two cases, the website offers recommendations for mitigation measures. The results of the self-assessment can be saved as a pdf and printed.

In 2016, the project team who developed SiLK, was awarded a newly founded prize for activities of protection, care and display in the cultural heritage preservation sector, the "Riegel – *Kultur*Bewahren". An interview with Alke Dohrmann, one of the developers of SiLK, can be found on Youtube.⁹³

This form of direct access to self-assessment is definitely useful for small or medium-sized organizations that do not have the means or the possibility to have outside consultants assess their collections. An obvious limit is the reference to German legislation and standards only, but with an English translation available for the bigger part of the website and lists of international publications, this limitation is reduced. The tool covers the majority of emergencies that can happen in the Middle European context, therefore not including hurricanes, tsunamis and volcanic eruptions.

The Emergency Response and Salvage Wheel and the ERS App

First printed in 1997, the *Emergency Response and Salvage Wheel* was soon widely present in cultural institutions. This practical tool, a 25cm diameter cardboard circle available in many languages, provides quick and concise information about the steps to undertake in the first 48 hours after a disaster. One side describes actions like stabilizing the environment and damage assessment; the other side shows salvage steps for different kinds of damaged material (books, photographs, paintings, and more).

In 2011, the Wheel went digital, offering a free App for smartphones, thus giving access to the same information in an easy-to-use way. The App is subdivided into two big sections: action steps and salvage techniques, like the two sides of the cardboard version of the Wheel. Apart from those main resources, it offers background information, a glossary and links to more resources. At the time of this writing, sadly, the links offered to many institutions and websites did not function.

⁹³ https://www.youtube.com/watch?v=hgtNX9bcNfA (URL: 04.05.2018)

Preliminary conclusions

A survey of a development in the literature on the topic has produced limited results. Handbooks today are structured very much like the first handbooks in the late 1970s and 1980s. The main steps are the same, slight differences coming from technological progress and a higher attention to human relationships. If for Waters in 1975 the card catalog was the most important thing to save, for Kahn and others it is now the IT-structure of a library. If landline numbers were previously saved in telephone trees, nowadays cell phones and social media accounts are the first choice for contacting staff and keeping them informed. Communication with staff, public and the media has become more important. What grew over time is the realization that institutional support is essential, while its absence has become a greater source of frustration.

Perhaps the biggest change in the approach to emergency planning today comes with the availability of innumerable resources on the internet. Publications on disaster planning can be downloaded as PDF files, planning tools and templates for written plans are available (many at no cost), video tutorials teach staff how to extinguish a fire or prepare wet books for pack-out, and much more. Thanks to an effective open access to many of these resources, it is now easier for institutions with limited budgets and staff to create at least some kind of Emergency Preparedness Programme. Unstable power supply and/or internet connections or lack of language skills can still be an obstacle to access, but these difficulties have been lessened by the variety of material online.

Regarding the vast treasure of available sources, Matthews reports interesting feedback from many of the participants in his 2005 study on disaster management in archives, libraries and museums. People appreciate the (free) online availability of an enormous quantity of information, but they also refer to information overload, complain that the resources often are very similar ("it's all the same stuff") and that, despite seeing the quality of the material, they find it difficult to apply what they read and see to their own situation. ⁹⁴ In researching this chapter, I had a similar experience: the quantity of printed and online resources is overwhelming, and very often bibliographies and collections of links comprise the same references. Finding the perfect handbook, the one template or collection of material that is the best fit for a certain institution is a time consuming enterprise and might be too challenging for staff with limited time for this work.

The survey that is at the center of the next chapter seeks to learn how the realities of emergency preparedness have developed since 2004. The target audience are national libraries around the world on the assumption that those institutions – in most countries the core collections of cultural identity – would be pressed to show a high motivation to ensure state-of-the-art preparedness.

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⁹⁴ Matthews/Smith/Knowles 2009: 84

4. Asking those in charge: the surveys

After reviewing printed and online publications on emergency planning, the practical investment in the topic may be investigated by analyzing a questionnaire filled out by national libraries around the world, who shared their experience with disasters and their state of preparedness. I wanted to know how many national libraries had adequate emergency plans, where they might find difficulties in these matters, and what their strengths in the present and their needs for the future were.

4.1. The original survey: 2004 (Appendix F)

In August 2004, Marie-Thérèse Varlamoff, IFLA-PAC Director, and former IFLA officer Marie-France Plassard presented their survey on Disaster Planning in National Libraries at the IFLA Congress held in Buenos Aires.⁹⁵ In December 2004, they published their results in *International Preservation News*⁹⁶, making the questions available, along with the analysis.

Earlier that year, they had sent out a densely written two-page questionnaire to national libraries around the world, asking them to share information on their state of preparedness in case of a disaster. The topic had come into focus after the 68th IFLA General Conference and Council in Glasgow, Scotland, had voted in August 2002 on a resolution proposed by Varlamoff that aimed to increase awareness of disaster preparedness. This new interest can probably be related to the 9/11 attacks in the United States, less than one year before the Glasgow conference. Awareness of the ever-present threat to all kinds of buildings and institutions, including libraries and other cultural centers, grew exponentially after this man-made catastrophe. The resolution by the IFLA Conference stressed the responsibility libraries have to protect their collections in the face of threats, explicitly mentioning the necessity to create and maintain disaster plans:

Be it resolved that, considering the many risks that threaten the cultural heritage, all libraries responsible for collections of national significance should set up, test, implement and regularly update a disaster plan. ⁹⁷

The questionnaire was prepared in English, French and Spanish and posted by conventional mail to 177 recipients in February 2004. A total of 73 libraries replied (about 41%), 39 of which said they had a disaster plan (about 53%), 28 said they did not have a disaster plan yet, but had intentions to

⁹⁵ Joint session of the Section on National Libraries and the Section on Preservation and Conservation (PAC).

⁹⁶ Varlamoff/Plassard 2004

⁹⁷ http://origin-archive.ifla.org/IV/ifla68/council-res.htm (URL: 17.03.2018)

write one, and six stated they did not plan on writing such a document. Only 13 libraries had disaster plans that were part of a national plan.

The survey aimed – among other things – to find out whether previous experiences of disasters had exerted an influence on the composition of the plan, and to identify other factors determining the libraries' positions with regard to preparedness in general. After providing generic information about the institution, participants were asked to give details on their building(s), about experiences with disasters and the perceptions of risk in the area, about their disaster plan if they had one, and about preventive measures like the installation of fire alarm systems or sprinklers.

In the conclusion, the article makes several important points that were to be taken into consideration by IFLA, PAC and the CDNL before planning the next strategic moves in the field of emergency preparedness:

- The presence of a disaster plan seemed not to be directly correlated with the industrial development of a country, meaning that many countries which are not industrialized do have a plan and do also regularly update it.
- A key aspect of concern for many libraries is the need for more awareness among decision makers, thus giving preparedness priority status, even in institutions with a small budget.
- The importance of insurance policies was underlined, especially with regard to rather old buildings.
- Given that only one third of the existing disaster plans were part of a national emergency plan, the question arose if national policies should aim to include disaster plans for cultural institutions.
- Finally, the importance of testing and updating the existing plans, establishing priorities, and having technical recommendations for the treatment of library materials at hand were stressed.

Since many libraries had claimed that the lack of a model was one of the main reasons for the absence of a disaster plan, as an immediate consequence of the survey, IFLA developed a handbook on risk preparedness and emergency management, which was published in 2006⁹⁸.

Another recurrent explanation for the absence of a plan was lack of human and financial resources. This issue of priorities and subsequent funding is, in fact, a familiar concept in the literature: frequently, decision makers are not aware of or ignore the importance of an emergency plan and therefore do not provide necessary resources and other institutional backing for composing one. While this problem has to be addressed on managerial levels, the authors state as a central

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⁹⁸ McIlwaine/Varlamoff 2006

recommendation the importance of cooperation between institutions. According to Varlamoff/Plassard, cooperation is key, especially when funds are scarce, since knowledge exchange and reciprocal assistance are to be highly valued in case of emergency.

4.2. The follow-up survey: 2018 (Appendix B)

Reading the article on the 2004 survey inspired me to carry out a follow-up. Because 14 years had passed since the first survey was made, it was important to try to find out how the field had developed and how participation had been altered in the process. The new survey sought to determine if there had been a change in awareness and preparedness. It also wanted to evaluate the impact of the IFLA manual on measurable progress, and to identify other needs of today's libraries for information or support on the topic. At the suggestion of IFLA collaborators and others in the field, I added questions on training and outreach to investigate those activities that national libraries do or do not offer to their public. I wanted to find out if the management levels of national libraries had caught up with events and experiences, and had therefore become facilitators of emergency preparedness, especially given the importance of the institutional support those activities require.

4.2.1. Methodology

The new questionnaire was developed based on the 2004 survey, with a few modifications. For a detailed description of the modifications, see Appendix C.

An early decision was made to use "emergency" instead of "disaster" to describe the focus of the work. In the literature both terms are used almost interchangeably, so I chose to use the term that seemed more appropriate because it is more generic. The method of distribution changed from conventional mail to an online survey, including also a pdf-version. Full reliance on the internet generated several problems, like the difficulty to find valid contact information for all national libraries, since many do not provide an email address on the official IFLA contact list, or do not have institutional email. The online-mode changed the way the questionnaire was set up. To avoid many interrupted participations due to the need to answer mandatory questions, I decided to add the option of answering "other" (+ comment field). This was well accepted by some participants who added useful information and that way made me aware of issues I had not considered in conceiving the questionnaire.

I inserted several questions concerning organizational and technical developments made in the last 14 years, about material libraries consulted, about the need for additional support and about activities in information and training. A direct reference to the IFLA Manual of 2006 was inserted to measure the practical impact of the publication on the institutions.

Depending on the answer to question #15, *Do you have a written emergency plan?*, participants would in the next step be referred to different questions. Those who answered affirmatively would fill out the whole questionnaire, whereas those who answered negatively would be re-inserted into the questionnaire at a later point. During the analysis, I found that excluding institutions without an emergency plan from a significant part of the questionnaire hindered the receipt of some observations that could have been made if all of the questions had been answered. What is therefore not adequately documented is for example the possibility that libraries without a full emergency plan might still have some prevention measures in place (e.g. prioritization within the collection or recommendations for handling library materials).

The design and actual creation of the online survey was a challenging process. Among the most difficult were getting to know the software (LimeSurvey, made available through the Humboldt University of Berlin), finding translators who would meet my deadlines, and dealing with the limitations of the program, especially regarding the Arabic version of the questionnaire, all of which required a significant amount of time and persistence.

The distribution itself proved to be challenging too: Unlike the survey of 2004, it was clear that this survey would be sent out via email. I am deeply grateful to Genevieve Clavel-Merrin (Swiss National Library, National and International Cooperation), Tanja Clausen (IFLA Policy and Research Officer) and Gerard Bouwmeester (Koninklijke Bibliotheek – National Library of the Netherlands, Acting CDNL secretary), who helped distributing the call for participation through the mailing lists of the IFLA Section for National Libraries (NAT-LIB, 158 recipients)⁹⁹, the Conference of Directors of National Libraries (CDNL-L, 245 recipients) and the IFLA Strategic Programme on Preservation and Conservation (PAC-LIST, 468 recipients). It proved to be impossible to find an exhaustive list of national libraries and/or find useful contact information for all libraries. Subsequently, it was impossible to know who was supposed to receive my email, who actually did receive my email, and who did not. At the end of my research for contact information, I had a list of 192 national libraries, of which 23 did not have valid email addresses and therefore rejected my emails. I therefore must assume that 169 libraries did receive my invitation for participation either through one of the mailing lists or through a personal email.

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⁹⁹ Numbers of recipients as of March 17, 2018.

4.2.2. Facts and numbers on the 2018 survey

The first invitation to participate (Appendix A) was sent out on February 15, 2018 to the three mailing lists, with a cover letter by me and some introductory words by the intermediaries. After two weeks, only six libraries had submitted responses, so we sent out a reminder (March 2, 2018), which encouraged ten more libraries to participate. Coming closer to the deadline, originally set for March 15, 2018, I sent out over 160 personalized emails, and on March 15, 2018 another reminder was sent out, informing recipients that the deadline had been extended to the end of the month. In the days immediately after the personalized emails, 23 libraries submitted their responses (March 12-16, 2018).

By the time the survey was closed, 57 national libraries had submitted valid responses (about 33.8 %). A total of 186 participations was registered, 122 of which are inadmissible, because incomplete. The majority of these participants spent not more than one or two minutes on the survey page, but some stayed as long as 7-10 minutes before they interrupted their responses.

Of the submitted, valid responses, 45 were in English, 6 in French, 5 in Spanish and only 1 in Arabic. The effect I hoped for by translating the survey in Arabic did not materialize, since the possibility of answering in Arabic did not encourage a higher participation rate. On the other hand, it is noteworthy that four out of five Arabic states who participated are new respondents, who did not participate in the 2004 survey. These countries are Jordan, Libya, Mauretania and Qatar.

4.2.3. Data cleaning

In order to have a clean file to draw my statistics from, I had to exclude a small number of responses, for three reasons: some were double responses from the same country, others did not come from a national library, and others again were not complete. In a few cases, it was necessary to intervene directly in the answers, because there had clearly been either a misunderstanding or a flaw in the statement of the question. I therefore had to make decisions if and how to alter a few answers, in order to have legitimate numbers in the end. Where Arabic participants left comments in the "other" field, they were translated with Google Translator and added to the cleaned file in their English version. For the detailed description of the cleaning process, see Appendix D.

Comparison of the results of the 2004 and the 2018 survey is methodologically difficult, because my knowledge of the original survey is based exclusively on the article in IPN and a speech-version of that article 100 (delivered at the Buenos Aires congress), both available online. Despite various

https://www.google.it/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=OahUKEwi2lPqlo_jZAhXODew
KHbP3AjcQFggoMAA&url=https%3A%2F%2Farchive.ifla.org%2FlV%2Fifla70%2Fpapers%2F142e_transVarlamoff_Plassard.pdf&usg=AOvVaw0b3Th7XkLTXNQox04vf3Wu (URL: 19.03.2018)

attempts, it was not possible to locate the raw data from the 2004 survey, nor talk to the authors. A comparison is still possible, bearing in mind that the 2004 results are edited in ways I cannot retrace and might therefore not be entirely reliable.

4.2.4. Findings

Combining the findings of both surveys, today we have information from 105 libraries (73 respondents in 2004 + 32 new respondents in 2018, with 25 libraries answering both surveys). In 2004, 39 (of 73) libraries had an emergency plan (about 53%), whereas 40 (of 57) answered that question affirmatively in 2018 (about 70%).

Adding to the 39 existing plans from 2004 are the 21 plans by new respondents and the seven who did not have a plan in 2004. Assuming that the 2004 plans are still in place, I can say that today probably 67 national libraries have emergency plans (63.8% of the respondents from both surveys). Given the considerable effort and incremented activities by many institutions (see previous chapter about online opportunities), an increase of only slightly over 10% over 14 years does not seem overly positive. Even with the reality of constant threats, which might also be seen as intensifying over the last 20 years, and as we face more severe weather events and the fear of terrorist attacks, it is evident that, as a group, our national libraries still need to be convinced of the need to engage in disaster planning at their institutions.

In the following sections, I will analyze selected questions from the survey. The specifications next to the question indicate the basic set of respondents (N), and if was a single choice (SC) or a multiple choice (MC) question. The full questionnaire can be found in Appendix B.

PLAN OR NO PLAN

Question #15: Do you have a written emergency plan? (N = 57, SC)

and

Question #20: When was the emergency plan established? (N = 40, SC)

	EP in		
EP in 2004?	Yes	No	Total
Yes	12	2	14
No	7	4	11
New respondents	21	11	32
Total	40	17	57

	N° of EPs
EP 2004	39
New EP	28
Total	67

Of 57 national libraries who submitted valid responses, 40 do have an emergency plan in place (a little over 70%). Find a full list of countries in Appendix E.

Of eleven countries who in 2004 had no emergency plan, seven developed one in the meantime, four still do not have a plan, but have intentions to write one (Pakistan, Seychelles, Tunisia and Tuvalu).

Of the 32 new respondents, 21 do have an emergency plan and eleven do not.

Surprising is the almost total absence of national libraries from Latin America in this study, even though in 2004 fifteen countries from that region had answered the call for participation in the survey (five South America, six Central America and four Caribbean), nine of which had an emergency plan. Even emails sent directly to the heads of PAC Latin America and the Caribbean did not lead to additional feedback. Only Jamaica, Belize and Trinidad and Tobago did participate in both surveys and all three countries did already have a plan in 2004.

Liechtenstein, Spain (Madrid), Pakistan and Qatar state that they do not have a written emergency plan yet, but that they are already working on it. Nine institutions have intentions to write a plan, but do not know exactly when: Aruba, Mauritania, Mauritius, Nigeria, Romania, Seychelles, Tunisia, Tuvalu and Uganda. Libya does not mention the intention to write a plan, but states that they have signed the The Hague Convention¹⁰¹, evidently in order to guarantee major protection to the national library as cultural heritage. Only three countries (Andorra, Nepal and Iran) do not intend to develop an emergency plan. The situation seems to be particularly difficult in Nepal. The chief librarian reports severe damage after a devastating earthquake in 2015, from which they seem to be nowhere close to recovery. The librarian writes that in fact, they do not have a building or even land to erect a new building on. Their rare and valuable collections are stored in a school building. It is obvious that this institution has issues that are more pressing at the moment, but of course, the hope is that once this crisis is over, they will have the means to invest in preparedness.

Of 14 countries who did respond affirmatively in 2004, two say they do not have an emergency plan now (Romania and Mauritius). It is not possible to determine whether this answer was inadvertent or if, due to circumstances, structural changes, new management or a changed definition of what an emergency plan is, these libraries do, in fact, currently not have a valid plan.

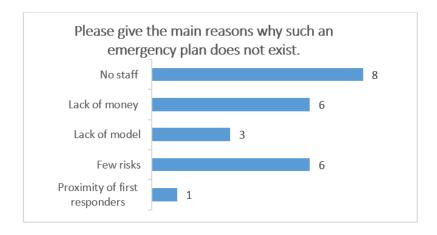
A total of 32 countries who have a plan state that they did develop it in the last 10 years (one as recently as last year, 16 were written more than six years ago), five wrote it more than 10 years ago and two are working on it. One answer was unclear, therefore the total is 39, instead of 40.

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¹⁰¹ United Nations 1954/1999

Question #17: Reasons for the absence of a plan (N = 17, MC) and





Question 17 sought to find out more about the reasons why some national libraries still do not have an emergency plan in place. The answers to this question do not provide a lot of new information. Thirteen respondents of the total 17 that do not have a plan did report lack of resources as an important factor (adding eight "no staff" to six "lack of money", minus one who checked both options make a total of thirteen). While lack of resources could be interpreted ("translated") as a sign for lack of institutional support, there might also be other reasons, and since I did not directly ask about the level of support by management, it is not possible to draw a conclusion about this aspect of the theme. While Matthews in his 2005 survey asked for personal statements under the protection of anonymity, my setup of the 2018 survey might have put responders in a difficult position, asking to denounce poor institutional backing. Based on the few answers I have, and without additional information, I cannot draw conclusions or make recommendations for strategies to help libraries develop an emergency plan.

Three of the six libraries that state they do have few risks had never in fact experienced an emergency (Mauritania, Iran and Qatar). To put this response into perspective, one has to take into consideration the fact that the national library of Qatar was inaugurated officially earlier this year, whereas the national library of Iran was established in 1937. (I have no information in this regard on Mauritania.)

It is interesting to note that only three libraries report the "lack of a model" as a reason for not having an emergency plan. Unfortunately, I do not know how many libraries in 2004 raised that issue, but I can say that the manual published in 2006 as a reaction to the 2004 survey did have some impact on the community. Twenty-four respondents state that they know the publication (60%),

eleven of whom did actually use it for the development of their emergency plan. Fifteen answered that they did not know the manual, and the Library of Congress stated that they had contributed to the development of that publication. With free online availability of the document, and being a publication of IFLA, the number might still be seen as surprisingly low. I have to consider though, that since the 17 libraries without a plan did not get to answer the question about the manual, the total number of survey participants aware of the publication is probably higher than 24.

EMERGENCIES AND BUILDINGS

Question #6: Has your institution experienced an emergency during the last ... years? (N = 57, SC)

This question aimed at finding out if the experience of an emergency made it more likely for a library to develop and implement an emergency plan.

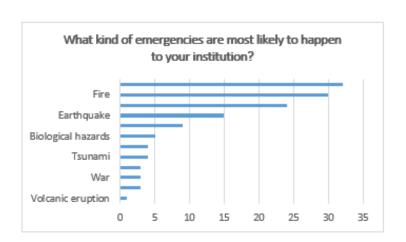
People at the National Library of Australia still remember vividly the fire of 1985, an emergency that happened more than 30 years ago, and which fundamentally changed the way library staff looked at their building and planning. At first, they seemed to be an exception (along with Finland), because other libraries that faced an emergency so long ago do not seem to have acted on that experience (three institutions). Yet given the fact that the total of libraries whose experience with emergencies lie that far in the past is only five, I cannot base any conclusions on so small a sample.

Experienced emergency	EP in 2018?		
in the last?	Yes	No	
5 years	77,78%	22,22%	
10 years	83,33%	16,67%	
20 or more years	40,00%	60,00%	
Never	53,85%	46,15%	
Total	70,18%	29,82%	

Experienced emergency	EP in 2018?		
in the last?	Yes	No	Total
5 years	21	6	27
10 years	10	2	12
20 or more years	2	3	5
Never	7	6	13
Total	40	17	57

A little over 70% of the respondents do currently have an emergency plan. It seems that there is a correlation between having had an emergency in recent years (5-10 years) and having a plan, because in that group the percentage rises up to around 80% (+/- 3%). This is significant, because these represent more than 50% of the total number of respondents (31 out of 57). The opposite phenomenon is evident in the libraries that never have experienced an emergency. In that group, the percentage of libraries who have an emergency plan drops far below the average, to slightly over

50%. One particular date is difficult to interpret, as the number is unusually high, but I do not know why. The notion that Canada (LAC) claims to have experienced 150 emergencies since 2004 seems unlikely (Canada BanQ reports two emergencies), and the explanation could be anything from a typo to a very strict definition of an emergency.



Question #10: Types of emergencies likely to happen. (N = 57, MC)

The question about the types of emergencies most likely to happen to an institution brought an interesting insight. While in the 2004 survey the majority of libraries stated fire to be the biggest threat, with the extended list of 2018, technical and mechanical incidents, which were not among the choices in 2004, are on top of the list. This finding confirms what I could read in the literature, about the big risk poor maintenance, construction/renovation works, and inaccurate handling of technical units represent for buildings and collections. Focus on prevention in this area could therefore have a significant impact on future events in libraries.

Four libraries added "Hurricane/Storm" in the "Other" field, which of course is an important natural event I had not considered. The National Library of Libya reports a terroristic act they experienced during the war on terror in the city of Benghazi.

Question #13: Age of building(s) (N = 57, SC)

	Emergency Plan?		
Is your main building?	Yes	No	
Less than 5 years old	1	1	
5 to 10 years old	1	2	
10 to 25 years old	6	3	
25 to 50 years old	14	4	
50 to 100 years old	10	4	
More than 100 years old	5	3	
Other	3		
Total	40	17	

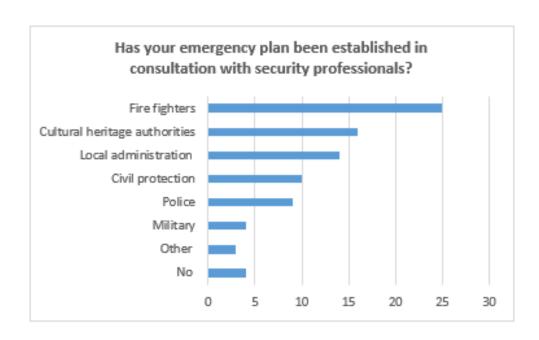
The age of the building does seem to have some influence on the existence of an emergency plan. Of the libraries with buildings from ten to 100 years old, at least twice as many as not have a plan in place. Yet the overall numbers are too low to draw definite conclusions.

Those who responded "Other" have more than one building from very different periods (more than 100 years, more than 25 years or built recently).

DEVELOPMENT AND ELEMENTS OF THE EMERGENCY PLAN

Question #22: Consultation with security professionals? (N = 40, MC)

This question investigated if and to what kinds of professional agencies the national libraries reached out to develop their emergency plans. A strong engagement with the fire fighters can be seen (25 out of 40), as well as collaboration with cultural heritage professionals and local administration. Civil protection and the police play a minor role, and only China, Croatia, the Dominican Republic and Poland call for the military for assistance in writing a plan. The three "Other"-comments are interesting, adding outside (security) consultants and collaboration with other similar institutions. Only Canada (BanQ), Ireland, Norway and South Africa instead do not collaborate with any outside agency for the composition of their plan. The idea of including professionals from outside the home institution seems to have caught on with the national libraries, as nearly all did create some kind of collaboration with other agencies. Exchange like this can only be seen positive, as cooperation is a key feature of effective preparation to meet an actual emergency episode.



Question #18: Prioritization (N = 40, SC)

This question investigated how many of those who have an emergency plan did actually include the prioritization of collection parts to enable making quick decisions when necessary. An impressive 70% of the national libraries did include this step in their plans (28 out of 40), and two report that they are working on the prioritization issue. Unfortunately, ten libraries did not yet realize the importance of making these choices while writing the plan.

Question #19: Technical recommendations (N = 40, SC)

The question about technical recommendations aims at finding out if the element of "salvage techniques" has been included in the plan. Three quarters of the libraries with a plan have such recommendations in their document. Twenty-five libraries did call conservation and preservation professionals to help them with this task, five libraries had a team selected from their own staff to write their guidelines, and one more library did both. Still, nine institutions report that they lack this important part of the plan.

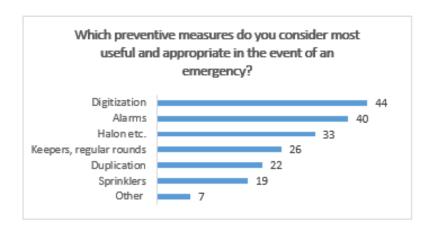
PREVENTIVE MEASURES

Question #41 wanted to investigate what kinds of measures are perceived as useful in an institution, independently of the actual situation. What do staff consider appropriate devices or strategies to keep their collections safe when disaster strikes? Question #34 asked about the existence of duplication and/ or digitization measures currently in place.

Question #41: Independently from what is available in your institution: Which preventive measures do you consider most useful and appropriate in the event of an emergency? (N = 57, MC)

and

Question #34: Duplication and Digitization (N = 57, MC)



A vast majority of libraries do have digitization strategies in place (50 out of 57), but interestingly enough, not all of them seem to consider digitization a highly useful measure (44 out of 57). Alarms in general are perceived as important, as are fire extinguishing systems like Halon gas and the presence of keepers, which 45% of the respondents mark as effective. Duplication (22) and sprinklers (19) do play a smaller role. Some interesting additional suggestions were made in the comments to "Other": cooperation with first responders, education and human presence on site emerge as being important. Libya stated that they had developed a duplication and digitization strategy, but were not able to implement it because of the war.

Question #35: Emergency Kits (N = 57, SC)

Nearly 65% of national libraries have emergency kits ready for use (37 out of 57). Of the 17 institutions who do not have those kinds of supplies, ten do not have an emergency plan, while seven do have a plan, but no emergency kits. Six libraries with emergency kits in place have no plan. It is therefore clear that the lack of a plan does not mean that there are no provisions for emergency preparedness at an institution.

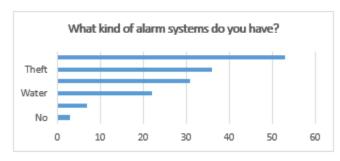
Those who checked "Other" state that at least part of their locations have the necessary means to face an emergency.

Question #26: Staff training? (N = 40, SC)

Although the literature makes it very clear that an emergency plan can only be effective if staff is trained in putting it into action, unfortunately not all national libraries take that aspect seriously. Only thirteen libraries train all of their staff, 21 have a team selected from staff who are trained in the use of the emergency plan, and six libraries do not execute trainings at all. I can therefore assume that only a little over 50% of those who have a written plan are actually really prepared for emergencies, as those who train only part of their staff or nobody at all, do not have a fully effective preparation.

ALARMS AND INSURANCE

Question #36 + #37: Alarm systems? (N = 57, MC+SC)



It is evident that fire continues to be the main concern for libraries, for only four libraries report not having a fire alarm system installed, whereas 53 libraries do have some kind of fire alarm. These high numbers demonstrate the need for protection from fire (after technical/mechanical incidents the second most common threat of destruction), but it might also indicate the increased availability of such systems. Smoke detectors have been on the market for 50 years, are relatively easy to find even in developing countries and very often required by law, whereas other alarm systems might still be difficult to obtain and/or too expensive. Those who chose "Other" gave some additional options I had not considered: video surveillance (CCTV), RFID technology (supposedly as anti-theft alarm system) and alarms for seismic events.

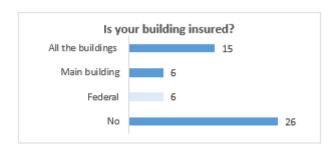
As mentioned before, Nepal is in a particularly complicated situation, with no alarm systems in place at all. Belize and Tuvalu state they do not any alarms either, Nigeria does have an alarm system against theft.

A total of 46 libraries test their alarm systems regularly, two of which state that only partial testing is performed. The awareness of the importance of maintenance of these systems seems therefore to be very high.

Questions #38-40: Insurance (N 2004 = 73, N 2018 = 57, SC)

It seems that the situation regarding insurance improved a little bit, compared to the 2004 data. I can see an average increase of over 5% for all aspects, although there are still more libraries that do not have their buildings, collections or equipment insured than those which do. Some institutions state that they don't need insurance or are automatically insured, because the national library is a federal building and therefore covered under special government insurance. Those cases are not considered in the comparison of percentages. The diagrams show the 2018 numbers.

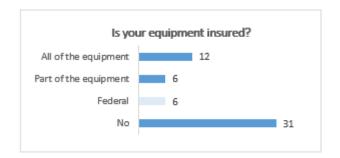
Question #38



Insured in 2004: 23 = 31.51 %

Insured in 2018: 21 = 36.84 %

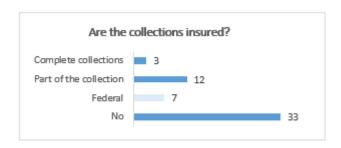
Question #39



Insured in 2004: 19 = 26.03 %

Insured in 2018: 18 = 31.58 %

Question #40



Insured in 2004: 19 = 26.03 %

Insured in 2018: 18 = 31.58 %

COOPERATION

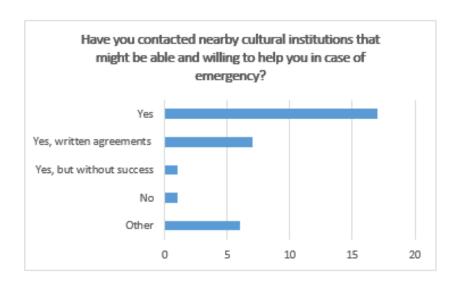
Question #16: Emergency plan part of a national emergency plan? (N = 40, SC)

Less than one third of the existing plans (12 out of 40, = 30%) are part of a national emergency plan. This percentage is even lower than the 2004 result (33%), indicating that collaboration with government agencies on that matter still seems to be an exception. This is grave, given that governments taking on responsibility for the preservation of their country's written heritage would be an important step towards insuring the much needed safety and preparedness for libraries. The situation is particularly unsettling given the situation of insurance coverage coupled with the unmet needs for emergency planning. For some institutions, the context might be ripe for a "perfect storm" of misfortune.

Question #31: Participation in regional or national emergency networks? (N = 40, SC)

The literature underlines the important role that regional or national emergency networks can play, and how support of this kind can especially help smaller institutions to reach an adequate level of preparedness. It is therefore useful to find out how common this form of collaboration is among national libraries, above all because their status should encourage them to be a driving force in the creation of networks. Unfortunately, almost half of the respondents (17 out of 40) do not participate

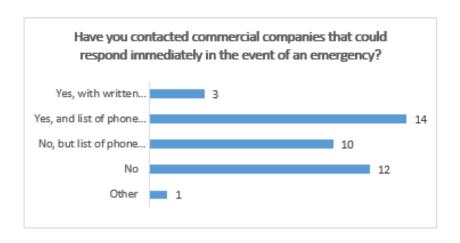
in networks. Belgium reports "work in progress" and 22 libraries are part of regional or national emergency networks. This area definitely needs attention if we want to see an increase in preparedness.



Question #28: Contact with nearby cultural institutions? (N = 40, MC)

Switzerland, Jamaica, Ireland, France, Canada (LAC), Austria and Australia have written agreements with other cultural institutions for reciprocal assistance in cases of emergency. These seven libraries are also part of a regional or national emergency network. Samoa tried to set up such collaboration, but did not succeed. A total of 17 libraries report that they did contact other institutions, but do not specify the results of such contact.

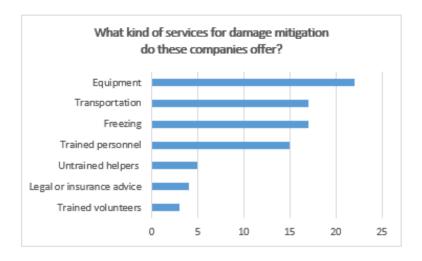
Of those who chose "Other", some report informal collaborations or collaboration with administration, civil defense or other federal agencies.



Question #29: Contact with commercial companies? (N = 40, SC)

A total of 27 libraries did make some effort to reach out to commercial companies in case of emergency. Three institutions, the Library of Congress and the National Library of Medicine (both USA) and the National Diet Library (Japan) do have written contracts, whereas fourteen libraries did not sign contracts, but do have a list of phone numbers to call in need. Ten more libraries have at least a list of phone numbers, even though they did not seek contact with those companies yet. A relatively high number of twelve national libraries did not take any steps for preparedness in that regard. Again, Belgium reports "work in progress".

Question #30: What kind of services for damage mitigation do these companies offer? (N = 33, MC) Some libraries answered this question, even though in the previous question they stated that they did not make any such contact, therefore the total number is higher than the 28 affirmative responses to Question #29.

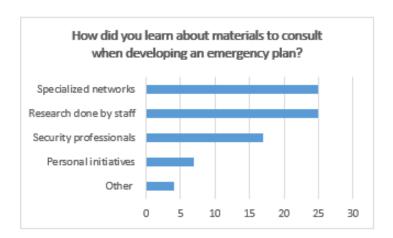


Equipment, transportation, freezing of water damaged material and trained personnel are the services most needed by institutions who turn to commercial companies. A lot of these items or services are highly specialized, costly and difficult to handle or store, therefore it can be crucial to have outside contractors on call in case of emergency.

INFORMATION AND SUPPORT

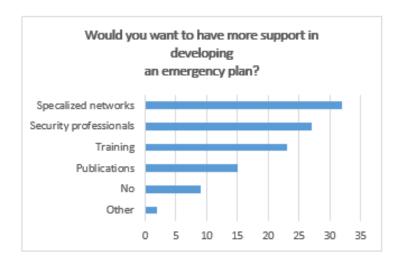
Questions #24 and #42 aimed at finding out how the national libraries found the necessary material to help develop their emergency plans and asked if they needed more support in their work. Since one of the main findings in 2004 was the need for a model for developing an emergency plan, it seemed interesting to look at the research strategies national libraries have and where they draw their knowledge from.

Question #24: Material consulted (N = 40, MC)



Networks like national library associations or IFLA-PAC seem to be an important source of information, as 25 of 57 libraries reached out to publications or services from these sources to develop their plan (43.9%). The same number of libraries had their plans drafted with people who drew their knowledge from institutional channels, while only a small amount of staff (7) went on to do that on personal initiative. Another 17 libraries profited from their collaboration with local or national security professionals, like fire fighters or civil protection.

Question #42: Need for support (N = 57, MC)



When asked about the need for support, input from networks like the above mentioned (library associations, IFLA-PAC, etc.) and from specialists from the sector of first responders (fire department, civil protection, etc.) seem to be more important to the respondents than actual training opportunities and publications they can rely on. It is not clear though, what kind of support they would like from those professionals. The question did not specifically ask for details, and nobody volunteered additional information in the comment field ("Other").

Surprisingly, nine libraries do not feel they need support at all: Austria, Canada (BanQ), Estonia, Germany, The Netherlands, Poland, Slovenia and the two US libraries, while the Library of Congress (USA) points out that they do not need support, but rather are the source of it for other institutions.

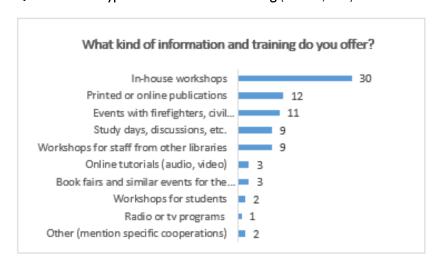
ACTIVITIES IN OUTREACH AND TRAINING

Question #43: Outreach and Training (N = 57, MC)



This diagram shows that more than 50% of the national libraries have their own staff as their main audience when they give information and training. Very few institutions (10) reach out to staff of other libraries, and even fewer try to involve the public (6) or decision makers (4) in activities on emergency preparedness. Furthermore, we can see a surprisingly high number, 23 libraries (around 40%), who state that they do not offer outreach or training activities at all.

Question #44: Types of outreach and training (N = 57, MC)



When asked to specify the type of education they offered, most of the libraries (30 out of 57) named in-house workshops as their principal activity. One fifth of the respondents do publish informational material (print and online) and/or participate in or organize events with firefighters, civil protection

or cultural heritage officers. Still, awareness of the importance of collaboration with these entities seems to be very low (11 out of 57), as are other means of active participation in the community (less than 10 out of 57).

The two institutions who chose "other" in this category mentioned specific co-operations with a national plan (Spain – Madrid) and with a seismological university institute (Dominican Republic). These low numbers open questions about the role of national libraries, and how they interpret it by engaging or avoiding engagement with other libraries in their country. It would be desirable to see national libraries take a leading role in the promotion of preparedness, but from the survey results, at the moment this does not seem to be the case.

OPEN QUESTIONS

In retrospect, some of the emergency plans were relatively easy to find (Italy, France, Brazil, and others), but more might be accessible. It would have been interesting to know if those who have an emergency plan have made it available online. Looking for best practices and most useful resources in the development of a plan might be a way to profit from those who have a plan in place and are willing to share that knowledge with those who are not yet prepared. More direct questions about the sources that libraries used in their planning process might also prove helpful. For a future survey, it could be important to learn more about internal and external communication strategies in case of emergency. The answers to the relatively simple question #17 did not give any real insight into hindering factors, and could not motivate respondents to share their difficulties. Asking more directly for the reasons that explain why an institution does not have a plan could be a solution to this concern. A follow-up survey will probably need to concentrate on the blind spots that this survey revealed: maintenance, national emergency plans and regional or national emergency networks, outreach and training, and in a more general sense the role of a national library are all issues contributing to an understanding of the topic.

5. Conclusion

After going through many print and online publications and scanning countless websites, I conclude that there is an abundance of material to consult in a planning process, and that the material is diverse enough to satisfy an extraordinarily wide array of needs and approaches. Easily available are handbooks with a focus on storytelling and case studies, handbooks filled with facts and numbers and bullet points and checklists, websites with explicatory images and video tutorials, digital tools, quizzes, and long lists of links to ever more material. The models for pursuing an emergency plan therefore exist and they are readily available, often at no cost. It has emerged clearly that the way emergency planning was conceived in the 1970s and 1980s, in the four phases of prevention – preparedness – response – recovery, remains the same in structure, but has undergone changes in content. These changes are due to an emphasis on human factors (like the wellbeing of the staff and communication issues) and to technical developments in the library sector, from paper-based operations (with AV media) to IT infrastructures and digital data.

The recent survey on the state of preparedness in national libraries reveals a relatively low level of engagement. Neither the return quota (one third), nor the percentage of national libraries who are prepared (70% of respondents, = only 35% of the total number, assuming that those who did not respond do not have a plan) are truly satisfying. The percentage of those who support other libraries is disappointing. In fourteen years no significant steps have been made to ensure the preservation of our written heritage for future generations. Sixty-seven national libraries do have an emergency plan — this means more than hundred do not, or did not care to share their experience. Because national libraries usually hold the essential collections of a country's cultural identity (and probably receive better funding to do so than most public or university libraries), one would expect high motivation to ensure state-of-the-art preparedness. The level of achievement on this matter ought to be more impressive. Given the limited nature of this survey and some of its dismal results, one suspects that the best strategy moving foreward is to continue engagement, rather than abandon it. Future surveys among other types of libraries on a worldwide basis are desirable, in part as fact-finding missions and in part to stimulate awareness in as many contexts as possible, in public libraries, research libraries, school libraries and others.

Assuming that the reluctance to respond to my questionnaire in part stems from the wish to avoid the topic, it is worth wondering still why so many libraries not have an emergency plan in place. Given the vastly increased amount of material available, the difficulty of knowing where to start has not gotten easier. That difficulty coupled with ever-present staff shortages and a reluctance at administrative levels to raise awareness – especially in an institution without first-hand experience

of an emergency – come together in negative ways. My own institution is an example of that dynamic. The impact of reading case studies and seeing shocking pictures from other libraries may last no longer than one's exposure to the account. Library managers and staff return to their daily tasks and forget about or feel overwhelmed by the necessity for a plan until a disaster hits their own or a nearby institution. Many times, the old advice to "learn from each other" seems to have less effect than the concept of "learning the hard way".

The lack of awareness can lead to a lack of support for those who do realize the importance of a plan for their library. A planning group needs time, inspiration and, ultimately, resources, and they need to connect with people throughout the organization to develop a truly effective plan. Without these elements in place, a fine document can easily end up buried in a director's drawer.

In the last analysis the need is strongest for intervention at the higher levels of library management, in the regional and national library associations, and also on a political level, to underline the importance of written heritage. Several national authorities have guidelines in place, like the Ministry of Cultural Heritage in Italy¹⁰², or engage in advocacy activities like the German initative Alliance for the Preservation of the Written Cultural Heritage¹⁰³, and the effect of those measures remain yet to be seen. UNESCO is active in these matters, especially through their Memory of the World programme, created in 1992¹⁰⁴. This programme focuses on particularly valuable documentary heritage like medieval manuscripts or maps.

Libraries as institutions are still often only a footnote in the bigger cultural heritage context. Strong and visible advocacy on behalf of libraries and archives has to reach decision makers, who then need to develop standards and regulations. IFLA is taking important steps in that direction, by supporting the *United Nations 2030 Agenda for Sustainable Development* through their document *Libraries safeguarding cultural heritage* and by promoting the UN organization sponsored *SENDAl Framework for Disaster Risk Reduction* (2015-2030)¹⁰⁷, a document with a stronger focus on cultural heritage than its predecessor (the *Hyogo Framework for Action* (2002-2015)¹⁰⁸. It is yet to be seen if papers like that will lead to concrete action or remain theoretical documents with little influence on the everyday work of libraries. Written heritage has to be officially included in the definition of cultural heritage. Up to now, there is only one major document citing books alongside archeological,

¹⁰² Beni Culturali 2014

¹⁰³ Schneider-Kempf 2009

¹⁰⁴ UNESCO 2010

¹⁰⁵ UNITED NATIONS 2015

¹⁰⁶ https://www.ifla.org/node/11387 (URL: 15.08.2018)

¹⁰⁷ https://www.ifla.org/files/assets/hq/documents/cultural heritage brief on drr.pdf (URL: 13.05.2018)

¹⁰⁸ https://www.unisdr.org/we/coordinate/hfa (URL: 13.05.2018)

architectural and artistic heritage: the Constitution of UNESCO (November 1945) declares that the organization will "maintain, increase and diffuse knowledge: by assuring the conservation and protection of the world's inheritance of books, works of art and monuments of history and science, and recommending to the nations concerned the necessary international conventions; [...]" ¹⁰⁹ This important acknowledgment of unquestioned fact, given voice more than 70 years ago, has not resulted in practical steps towards better protection of libraries. In this regard the contrast with the vast majority of (often non-binding) documents concerning historical sites and works of art, but not books and archival records.

In order to be even minimally prepared, the institutional learning process needs to be required by law. Negative consequences should be the price for not being adequately prepared. A clear example of the process is reported by Matthews, who states that in 2005 more institutions (in this case, museums) created an emergency plan than in any other year. Yet the year 2005 did not follow a big disaster, it was the year after the new accreditation scheme for museums had been introduced, requiring the development and periodical review of an emergency plan 110. Like the rules for building safely and then maintaining safety with the practice of fire drills and emergency tests, which are regulated by the law in most countries, there is a need for mandatory risk management to protect cultural heritage. The foremost issue would be emergency planning. While individual initatives are important, it is necessary to arrive at a level of responsible management of cultural resources, a statutory risk management. At the end of the day, organizations with best intentions can have a positive effect on important aspects of preservation, but those effects can be limited when compared to the needs that exist. From these circumstances it becomes evident that forces larger than a professional organization are necessary to foster and even enforce policies that are necessary for preserving the heritage of libraries for future generations. This leads to the reluctant conclusion that the only truly effective solution to an acknowledged problem is through governmental regulations and oversight. This conclusion may seem exaggerated, but innumerous accounts clearly indicate that the current tactic of inactivity in hopes that nothing will happen, cannot be a sustainable strategy for the future. Now it remains the choice of institutions to decide whether they wish to develop best practices in their stewardship over the heritage that they've been entrusted or to wait for governmental regulations to make sure that they do so.

It is frustrating but unavoidable to find oneself arguing simultaneously for oppoting aspects of the proposition - for a quick development and implementation of laws and regulations to ensure

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¹⁰⁹ UNESCO 1945

¹¹⁰ Matthews/Smith/Knowles 2009: 25

preparedness, and for libraries to take the task in their own hands and offer examples, from which policies can draw inspiration. Neither lawmakers, nor librarians have sole responsibility for the documentary heritage of the world. They should embrace it as common responsibility, common to them and to all of us, who work in, and use and love libraries.

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APPENDIX A: Cover Letter for Survey 2018

Dear Colleagues at a national library,

Over the past years, we have witnessed numerous disasters, both natural and man-made, leaving a serious impact on libraries and other cultural institutions. The need to protect the world's written heritage seems more pressing than ever, and it should be a common responsibility to support institutions in their efforts to safeguard their collections.

Following the <u>IFLA-PAC</u> survey on emergency planning in national libraries from 2004, and supported by the <u>Conference of Directors of National Libraries</u> and the <u>IFLA Strategic Programme on Preservation and Conservation (PAC)</u>, I wish to investigate where national libraries stand today with regard to preparedness for emergencies and outreach.

To do so, I kindly ask you to fill out the survey below on emergency planning. The survey should take no longer than 15 minutes to fill out and will be available to complete until March 15, 2018. Results from this survey will be disseminated and all participants will be directly informed.

You can choose between the Online Survey and a PDF version of the questionnaire.

Please submit PDF version to: posch@biblhertz.it or to: Cornelia Posch, c/o Bibliotheca Hertziana-MPI for Art History, Via Gregoriana 28, 00187 Rome, Italy.

Please find the survey here:

English: Online PDF
Arabic: Online PDF
Español: Online PDF
Francais: Online PDF

Thank you for taking the time to describe the situation in your institution by filling out the survey.

Please coordinate to have one person per institution to respond.

If you have any questions regarding this survey, please contact me at posch@biblhertz.it.

Kind regards, Cornelia Posch

Survey URL: https://umfrage.hu-berlin.de/index.php/998531?lang=en

APPENDIX B: 2018 Questionnaire (English)

Emergency Planning in National Libraries

Welcome to this survey on Emergency Planning in National Libraries. It should take no longer than 15 minutes to answer the following questions.

This survey is part of a Master's thesis on Risk Management in Libraries, to be submitted to the Department of Library Studies, Humboldt University, Berlin, Germany.

Following the 2004 IFLA-PAC survey on emergency planning in national libraries, and supported by the Conference of Directors of National Libraries and the IFLA Strategic Programme on Preservation and Conservation (PAC), we want to investigate where national libraries stand today with regard to preparedness for emergencies and outreach.

Results from this survey will be disseminated and all participants will be directly informed.

Thank you for taking the time to describe the situation in your institution.

Section A: - Institutional information

Please provide contact information about your institution.

1/48: Name of institution:

2/48: Name of director:

3/48: Address:

4/48: Phone number (with international country code):

5/48: Email:

Section B: - Emergencies

Please share your experience with large and small emergency situations and disasters, including any event, from a burst pipe to an earthquake or a terrorist attack.

6/48: Has your institution experienced an emergency during the last...

5 years

10 years

Never

Other

7/48: What kind of emergency was it?

Natural

Man-made

0ther

8/48: How many emergencies have you experienced since 2004, when IFLA/PAC last did a survey on this topic?

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1	War
2	Internal conflict
3	Terrorism
Other	Other
9/48: Is your institution situated in a location threatened by natural disaster?	Section C: - Buildings
Yes	Please provide information about the building(s) which house your institution.
No	11/48: Is your institution located in
Other	1 building
10/48: What kind of emergencies or disasters are most likely	2 buildings
to nappen to your insutation:	3 buildings
Floods	Other
Earthquake	12/48: If you are in more than one building are the buildings
	Within 10 minutes walking distance from each other
Lsunami	Within 30 minutes walking distance from each other
Volcanic eruption	Other
Biological hazards	

 :-
lding
l bui
main
your
Is
/48:
13/

Less than 5 years old 5 to 10 years old

10 to 25 years old

25 to 50 years old

50 to 100 years old

More than 100 years old

0ther

14/48: Do you share the building with other occupants?

Yes

No

0ther

Section D: - Emergency Plan - Preparedness - Outreach

An emergency plan is a written document which concerns the safety and rescue of collections and the safety of the building. It must not be assimilated to safety measures that deal with the security of employees and the public and that are compulsory.

D1 = 15/48: Do you have a written emergency plan?

Yes

No

D2 = 16/48: Do you intend to develop and implement one?

Yes, somebody is already working on it

Yes, but we don't know exactly when

No

0ther

D3 = 17/48: Please give the main reasons why such an emergency plan does not exist:

Few risks

No staff available to develop and implement it

Lack of model to develop it

Lack of money

Proximity of professional responders (e.g. fire fighters, police)

0ther

D4 = 16/48: Is the plan part of a national emergency plan?

Yes

No

Other	20/48: When was the emergency plan established?
D5 = 17/48: Does the plan deal with the security of	Less than 1 year ago
Buildings	1-5 years ago
Collections	0-10 years ago
Other	Other
	21/48: Do you update it regularly?
18/48: Have you prioritized parts of your collection to save in	Yes, every year
	Yes, every 2 years
res	Yes, every 3-5 years
	No
Other	Other
19/48: Have technical recommendations been written concerning the rescue of damaged material?	22/48: Has your emergency plan been established in
Yes, by conservation and preservation professionals	consultation with security professionals:
	Yes, with the fire fighters
res, by a team selected from staff	Yes, with the military
No	
Other	Yes, with the police
	Yes, with civil protection

Yes, with the local administration

26/48: Is your staff regularly trained to put the emergency 27/48: Are drills or exercises carried out to train staff in 25/48: Have you tested your emergency plan? Yes, earthquake evacuation drills Yes, a team selected from staff Yes, fire alarm drills plan into action? Yes, all staff general? 0ther 0ther 0ther Yes No No No interested in the field (online and offline, privately and through the Research done by staff (online and offline, through the institution) Specialized networks (e.g. national library association, IFLA, PAC, 24/48: How did you learn about materials to consult when Local or national security professionals (e.g. fire fighters, civil Research initiated by a single person or a group of people 23/48: Are you aware of the publication IFLA Disaster Yes, with the authorities responsible for cultural heritage Yes, but we did not use it to develop our emergency plan Preparedness And Planning. A Brief Manual (by John McIlwaine and Marie-Thérèse Varlamoff, 2006)? Yes, and we used it to develop our emergency plan developing an emergency plan? protection, ..) institution) 0ther 0ther No No

0ther

28/48: Have you contacted nearby cultural institutions that	Freezing
inight be able and winnig to neip you in case of entergency :	Trained personnel
Yes	
	Trained volunteers
Yes, and we have written agreements on reciprocal emergency assistance	Untrained helpers
Yes, but without success	Advice on legal and insurance issues
No	
Other	Other
29/48: Have you contacted commercial companies that could respond immediately in the event of an emergency?	31/48: Are you part of a regional or national emergency network?
Yes, and we have written contracts	Yes
Yes, and we have a list of phone numbers to call	
No, but we have a list of phone numbers to call	Uther
No	
Other	
	32/48: Do you have a list of staff specifically to contact in case of an emergency?
20 /40. What bind of comicos for damage mitigation do those	Yes, of all staff
=	Yes, of the team selected from staff
Transportation	Yes, but it is not updated regularly
Equipment	No

Other	Against water
33/48: Is a member of your staff responsible for the	Against intrusion Against theft
emergency pian and its implementation?	Other
Yes	
No	37/48: Are your alarm systems regularly tested?
0ther	Yes
	No
34/40: Do you have an active strategy for unpircation and/or digitization of your collections?	Other
Yes, digitization	38/48. Is vour building insured?
Yes, duplication	50/ 70. 13 your building mouteu.
	Yes, the main building
Other	Yes, all the buildings
35/48: Do you have prepared emergency kits?	No
Yes	0+40**
No	Other
Other	39/48: Are the collections insured?
	Yes, the complete collections are insured
36/48: What kind of alarm systems do you have?	Yes, a part of the collection is insured

No, collections are not insured

Against fire

Other	42/48: Would you want to have more support in developing
40/48: Is your equipment (e.g. scanners, computers,)	emergency plan?
insureu:	Yes from local or national security professionals (e.g. fire fighters
Yes, all equipment is insured	civil protection,)
Yes, part of the equipment is insured	Yes, from specialized networks (e.g. national library association,
No, equipment is not insured	
Other	Yes, through scheduled training
The description of the descripti	Yes, through printed or internet publications
41/46: independently from what is available in your institution:	No, we do not need more support
Which preventive measures do you consider most useful and appropriate in the event of an emergency?	Other
Duplication of documents (collections, catalogues) and storage offsite	43/48: Does your institution offer information and training in the field of emergency preparedness?
Digitization of documents (collections, catalogues) and storage on a server off-site	Yes, for our own staff
	Yes, for the larger library community
Optiliklets	Yes, for the public (regional and national)
Other fire extinguishing systems (e.g. Halon)	Ves for decision makers (regional and national)
Alarms	
Koonon romilar rounde	No
iveepers, regulal roulius	Other
Other	

48/48: Phone number (with international country code): Thank you for your participation! 47/48: Email: 44/48: What kind of information and training do you offer? Workshops for staff from other libraries Workshops for students In-house workshops

Presence at book fairs and similar events for the library community

Printed or online publications

Study days, discussions, etc.

Online tutorials (audio, video)

Participation in events with firefighters, civil protection, cultural heritage officers, etc.

Presence in radio or television programs on the topic

None of the above

0ther

Section E: - Before you go...

Please provide additional information about the person who filled

in the survey.

45/48: Name:

46/48: Position/Function in the institution:

Appendix C: Methodology: Development of Questionnaire

The new questionnaire was developed based on the 2004 survey, with the following modifications:

- 1. The title was changed from "IFLA Questionnaire on Disaster Preparedness" to "Emergency Planning in National Libraries".
- 2. Arabic was added as a fourth language, to encourage responses from the Arabic countries.
- 3. The main change in terminology was the decision to use "emergency" instead of "disaster" to describe the focus of the work. In the literature both terms are used almost interchangeably, and lacking a clear indication from people from the field, I decided to use the term that seems more appropriate. In analyzing the 2004 survey, for example, I had difficulties with the term "disaster", trying to relate the word to my experience. The Bibliotheca Hertziana had faced an emergency without question, but had it been a disaster? No, probably not. Still, the impact had been significant. Thus, the change of vocabulary.
- 4. The method of distribution changed from conventional mail to an online survey, including also the possibility to access a pdf-version and submit the completed pdf by email. The digital-only distribution seemed to be the obvious method to use nowadays, but I was made aware of (and later experienced) difficulties generated by full reliance on the internet. For example, a surprisingly high number of national libraries does not provide an email address on the official IFLA contact list, which was the basis of my endeavors (62 out of 179 total on that list). Reaching these institutions was only made possible thanks to the patient and determined work of a colleague and friend, who spent hours on the internet, trying to find contact information where not even the CDNL could offer any help. One problem remained: I had already been told that many library employees and even directors do not have institutional email and, in fact, many of the email addresses she found were private addresses and very often they were invalid, resulting in innumerous reports of "mail delivery failure" instead of participation in my survey.

The necessity to add a pdf-version was a response to the fact that many national libraries, like other institutions in developing countries, do not have access to a stable power supply system, let alone a reliable broadband internet connection. Offering a link from which a compressed pdf file (around 200 KB) could be downloaded, I hoped to give more libraries the opportunity to participate. Interestingly enough, the pdf-option was chosen by just four libraries, only one of which is situated in a developing country (Malaysia). Several institutions submitted both online and pdf responses. Either the internet connection

did not play a role in deciding on participation, or the pdf-solution did not offer a real help and should have been replaced by traditional mail. Limitations of time and resources discouraged me from using conventional mail or fax to send out the questionnaires. In a more ambitious context, those additional ways of distribution might be feasible, as would be? more extensive research to obtain valid email addresses for every institution.

- 5. The online-mode changes the way a questionnaire is set up. While a participant in an on-paper survey is free to choose to skip questions, an online survey allows the administrator to "force" participants to answer by introducing mandatory questions without which the survey cannot be continued. This feature is a double-edged sword: on one hand, it guarantees that only fully completed questionnaires are submitted, creating a reliable pool of data, without the need to "clean" the statistics of many partially completed responses. On the other hand, trying to force people to answer questions they do not want to answer means risking many interrupted participations, ergo a lower return. To solve this problem, I decided to add the option of answering "other" (+ comment field) to every question except those about contact information. In that way, participants could choose not to answer a question by checking the box for "other" and typing in either an alternative answer or "xxxx" in the comment field. This was well accepted by some participants who added useful information and that way made me aware of things I had not considered in conceiving the questionnaire. Others seemed to have had difficulties with the multiple-choice answers and helped themselves by writing those answers into the "other" field. This was cleaned up in the first step of analysis, to leave only actual additional information in the write-in fields.
- 6. At the beginning of every section, a short description introduced the topic to follow.
- 7. I inserted two questions concerning organizational and technical developments made in the last 14 years: about participation in regional or national emergency networks (question #31) and about the use of duplication and/or digitization as a preservation method (question #35).
- 8. With question #23, a direct reference to the IFLA Manual was inserted to measure the practical impact of the publication on the institutions: *Are you aware of the publication* IFLA Disaster Preparedness and Planning. A Brief Manual (by John McIlwaine and Marie-Thérèse Varlamoff, 2006)?. The answer-options included: Yes, and we used it to develop our emergency plan / Yes, but we did not use it to develop our emergency plan / No / Other.

9. Question #24 asked how libraries could learn about materials to consult to develop their emergency plans, in order to identify preferred channels of information. Question #42 asked for their need for additional support in developing an emergency plan.

Regarding the same subject area, two questions about the role of national libraries in outreach were inserted: questions #43 and #44 investigate which kinds of information and training, if any, the institutions offer to their various publics.

- 10. Several answer options were added where it seemed useful to get more detailed answers:
- In questions #26 and #32, I make a distinction between "all staff" and "a team selected from staff", which would have different training and responsibilities in case of emergency.
- In questions #28 and #29, several grades of contact and collaboration with other cultural institutions and commercial companies are listed (from the mere tentative to contact a potential partner or contractor to written agreements).
- Because insurance policies can be extended to the totality of a building, a collection or equipment, or only to a part of it, that fact was acknowledged with the addition of corresponding answer options to questions #38, #39 and #40.
- 11. Some minor changes in vocabulary and syntax were made, and the position of a few questions was changed.
- 12. To avoid putting pressure on people assuming responsibility for their institution, I deleted the request to name the person responsible for the emergency plan and made names and phone numbers of the person who filled out the survey a non-mandatory response.
- 13. The total number of questions increased from 44 to 50, although the maximum amount of questions a participant could to answer was 48 (minimum amount: 29 questions). Depending on the answer to question #15, *Do you have a written emergency plan?*, participants would in the next step be referred to different questions. Those who answered affirmatively would be asked to provide details about the plan and would fill out the whole questionnaire, whereas those who answered negatively would be asked to state reasons for the absence of a plan and would then be re-inserted into the questionnaire at a later point, specifically at question #34. From #34 to #48 the questions would again be relevant for all participants, whether an institution had an emergency plan or not.

During the analysis, I found that excluding institutions without an emergency plan from a significant part of the questionnaire did hinder some observations that could have been made if all of the questions had been answered. What is therefore not adequately documented is for example the possibility that libraries without a full emergency plan might still have some measures of prevention in place (e.g. prioritization within the collection or recommendations for handling library materials).

14. In discussing the survey with colleagues, more issues were brought to my attention, which for various reasons were not considered in the questionnaire:

- Our technical director suggested to add "flaws in procedures" to the possible reasons for an emergency (question #10), referring to another incident which had taken place at the Bibliotheca Hertziana several months before the water damage. Construction works in a central part of the new building had not been correctly prepared, and that led to the distribution of dust through the ventilation system and its deposit on books and surfaces in a big part of the library. Many libraries report incidents related to poorly executed renovation works or sloppiness in maintenance, which makes this an important factor in emergency planning. A future investigation should definitely explore this topic.
- Another colleague raised the issue of anonymity of respondents to the survey. Even though I understand the wish for an individual not to be held accountable, and therefore be able to answer more freely and openly about critical issues, I decided not to allow the possibility of anonymous responses. National libraries are crucial institutions for the cultural and intellectual life of a country and they should live up to those challenges, even in response to some delicate and even uncomfortable questions.
- An answer option for question #41 regarding possible preventive measures should have included "nebulization" (water-mist), a state-of-the-art alternative to classical sprinklers, which distributes a much smaller amount of water and therefore does less harm to books, while still fighting fire by reducing the temperature and oxygen content in a room.
- Preservation and conservation officers from the *Herzogin Anna Amalia Bibliothek* in Weimar, Germany, who had experienced a devastating fire in 2004, did look at the questionnaire and made a few interesting remarks. Unfortunately, those came to my attention too late to be able to make changes to the survey, yet I am very grateful for the time they took to go through my draft and share their experience and thoughts. They underlined the important factor of communication with the public. This topic is also repeatedly mentioned in the literature, especially in Alire (2000), and should therefore be considered more fully in a possible future inquiry. Another aspect the Weimar group

would have wanted to be investigated more thoroughly is the division of responsibility for different tasks/areas and the chain of command. It is crucial that assignments are made in advance and duties are clear to everybody, in order to guarantee that actions are well coordinated. Going more deeply into the organizational details of existing plans might not have been possible in the present survey, nevertheless it should be kept in mind in developing emergency plans in the future.

The design and actual creation of the online survey was a very challenging process: getting to know the software (LimeSurvey, made available through the Humboldt University of Berlin), finding translators who would meet my deadlines and dealing with the limitations of the program, especially regarding the Arabic version of the questionnaire, required a significant amount of time and persistence.

During the time the survey was open I received two reports about minor technical problems. In the case of Switzerland, federal firewall protection blocked the transmission of my invitation to participate. In the case of the Library of Congress in the United States, minor difficulties arose in the completion of the questionnaire as designed. Fortunately, neither situation prevented the institutions from participation.

Another challenge was the distribution itself: Unlike the survey of 2004 it was clear that the survey would be sent out via email, with options to fill in an online- or a pdf-version. I am deeply grateful to Genevieve Clavel-Merrin (Swiss National Library, National and International Cooperation), Tanja Clausen (IFLA Policy and Research Officer) and Gerard Bouwmeester (Koninklijke Bibliotheek – National Library of the Netherlands, Acting CDNL secretary), who helped me distribute the call for participation through the mailing lists of the IFLA Section for National Libraries (NAT-LIB, 158 recipients)¹, the Conference of Directors of National Libraries (CDNL-L, 245 recipients) and the IFLA Strategic Programme on Preservation and Conservation (PAC-LIST, 468 recipients). Yet, it was not possible to guarantee that every national library would receive the invitation to the survey. In addition, while starting to analyze the responses, another facet of the problem emerged: the distribution through mailing lists did not allow me to know the exact number of libraries that had received the call for participation in the survey. In these matters, there were two major problems:

1. Unfortunately, despite various attempts, it was not possible to obtain a complete list of updated contact information for the national libraries of the world. The contact list of the CDNL was not complete and many libraries did not provide (valid) email addresses.

-

¹ Numbers of recipients as of March 17, 2018.

2. None of the three mailing lists limit their participants to a pre-determined group of professionals (e.g. active staff of national libraries), and on the other hand, subscription to those lists is not mandatory for national libraries. This means that many people who, for example, are interested in preservation issues or in the activities of national libraries did receive my survey, even though they are not employed by a national library, and probably at least a small part of national libraries did not receive my survey, because they do not subscribe to either of these mailing lists.

It proved to be impossible to find an exhaustive list of national libraries and/or find useful contact information for all libraries. Subsequently, it was impossible to know who was supposed to receive my email, who actually did receive my email, and who did not. At the end of my research for contact information, I had a list of 192 national libraries, of which 23 did not have valid email addresses and therefore rejected my emails. I therefore must assume that 169 libraries did receive my invitation for participation either through one of the mailing lists or through a personal email.

APPENDIX D: Data cleaning

In three cases, libraries that were not national libraries, did submit a response. After online research, and confirmed by contacting them via email, I could find out details about their background and decided to keep Samoa in the survey, because the National University Library of Samoa does de facto fulfill the tasks of a national library. The Auckland Libraries are the public library system of the Auckland area and were therefore excluded, as was the Atatürk Library in Istanbul (Istanbul Metropolitan Municipality Taksim Atatürk Library). Unfortunately, that left me without data from New Zealand and Turkey, because neither national library did submit a response.

The participant from Turkey did a translation into Turkish and proposed a publication of the survey in his language, which, due to the setup of the whole enterprise, was not possible.

Four countries submitted two answers. In the cases of Norway, Tunisia and Libya I decided to eliminate the second answers without looking at the results, to avoid influencing the outcome. In the case of Nigeria, I eliminated the first answer, because it came from a university library and not the national library. In the cases of Canada and the United States two responses were accepted, because they came from different institutions belonging to the National Library system. For Canada the submitting libraries were the Library and Archives Canada (LAC) and the Bibliothèque et Archives nationales du Québec (BAnQ), for the USA I got responses from the Library of Congress and the National Library of Medicine.

France, Slovakia, Malaysia and Australia submitted pdf responses, which were inserted manually into the online survey mid-April, altering the date to the day they had submitted the pdf. China was added to the statistics, because their survey was filled in completely, but not submitted. Where Arabic participants left comments in the "other" field, they were translated with Google Translator and added to the cleaned file in the English version.

Several single answers were altered in the file, when it was clear that there had been a mistake, a misunderstanding or the conception of the questionnaire turned out to be flawed. This was done for Nepal in question #6, where they had chosen "experienced an emergency in the last 20 or more years", stating later they had experienced as many as 14 emergencies since 2004 and, in particular, a devastating earthquake in 2015. The answer was thus changed to "last 5 years". Changes were also made for the eight libraries who had chosen "No" to answer question #43 "Does your institution offer information and training in the field of emergency preparedness?", but in question #44 listed several activities they were offering. This is most likely due to an unclear formulation of the question, which was interpreted as asking for general activities, not those specific for emergency preparedness. Those eight libraries were thus set to the answer "non of the above" for question #44.

Appendix E

Valid responses to the survey "Emergency Planning in National Libraries", 2018

Country	Eme	rgency Plan?
	YES	NO
Andorra		X
Angola	Χ	
Armenia	Х	
Aruba		Χ
Australia	Χ	
Austria	Χ	
Bangladesh	Χ	
Belgium	Χ	
Belize	Χ	
Canada (BanQ)	Χ	
Canada (LAC)	Χ	
China	Χ	
Croatia	Χ	
Dominican Republic	Χ	
Estonia	Χ	
Finland	Χ	
France	Χ	
Germany	Χ	
Iran		X
Ireland	Χ	
Italy (Florence)	Χ	
Jamaica	Χ	
Japan	Χ	
Jordan	Χ	
Latvia	Χ	
Libya		X
Liechtenstein		X
Lithuania	Χ	
Malaysia	Χ	
Mauritania		Χ
Mauritius		X

Mexico	X	
Mongolia	Χ	
Nepal		X
Netherlands	Χ	
Nigeria		X
Norway	Χ	
Pakistan		X
Philippines	Χ	
Poland	Χ	
Qatar		X
Romania		X
Russia	Χ	
Samoa	Χ	
Seychelles		X
Slovakia	X	
Slovenia	X	
South Africa	X	
Spain (Madrid)		X
Sri Lanka	Χ	
Switzerland	Χ	
Trinidad and Tobago	Χ	
Tunisia		X
Tuvalu		X
Uganda		X
USA (Library of Medicine)	Χ	
USA (Library of Congress)	X	

APPENDIX F: 2004 Questionnaire

The following pages show the original survey, undertaken in 2004 by Marie-Thérèse Varlamoff, IFLA-PAC Director, and former IFLA officer Marie-France Plassard, and published in *International Preservation News* 34 (2004).

International Preservation News • No. 34 December 2004

IFLA Questionnaire on Disaster Preparedness

To be sent back to: Marie-Thérèse Varlamoff IFLA-PAC Bibliothèque nationale de France				
	Quai F	rançois-Mauriac - 75013 Paris - France BEFORE M ARCH 25, 2	2004	
A - Ins	titution			
A.1	Name of institution:			
A.2 A.3 A.4 A.5 A.6	Name of director: Address: Phone: Fax:			
B - Disasters				
B.1	Has your institution suffered from ✓ 5 years	m disaster during the last I no I no		
B.2	What kind of disaster was it? ☐ natural ☐ man-made			
B.3	How many disasters have you suf	ffered from these last 10 years? 3 more:		
B.4	Is your institution located in a region or place threatened by natural disaster? ☐ yes ☐ no			
B.5	What kind of disasters are most I ☐ fire ☐ floods ☐ earthquake ☐ landslide ☐ tsunami	likely to happen? volcanic eruption wars internal conflicts terrorism others:		
C - Bui	ildings			
C.1	Is your institution located in: one building several buildings: 5	□ 3 □ 4 □ more:		
C.2	Is your main building: ☐ less than 5 years old ☐ 10 to 25 years old ☐ 50 to 100 years old	5 to 10 years old25 to 50 years oldmore than 100 years old		
C.3	Do you share the building with our yes no no	other occupants?		
D – Disaster Plan				
A disaster plan is a written document which concerns the safety and rescue of collections and the safety of the building. It must not be assimilated to safety measures that deal with the security of the public and that are compulsory.				
D.1	Do you have a written disaster plant yes a no	lan?		
D.2	If no, do you intend to write and ups no	d implement one?		
D.3				
	others, please detail:	proximity of fire brigade		

D.4	If yes, is it part of a national disaster plan? ☐ yes ☐ no
D.5	Does it deal with the security of: ☐ persons ☐ building ☐ collections
D.6	Have you established priorities to save your collections? ☐ yes ☐ no
D.7	When was the disaster plan established? ☐ less than 1 year ago ☐ less than 5 years ago ☐ more than 10 years ago
D.8	Do you update it regularly? ☐ yes: ☐ every year ☐ every 2 years ☐ no ☐ every 5 years ☐ less
D.9	Has your disaster plan been established in consultation with civil security teams? ☐ firemen ☐ army ☐ local administration
D.10	Have you tested your disaster plan? ☐ yes ☐ no
D.11	Are drills or exercises organised to train staff? ☐ yes ☐ no
D.12	Is your staff regularly trained? ☐ yes ☐ no
D.13	Have you contacted other nearby cultural institutions susceptible to help you in case of a disaster? ☐ yes ☐ no
D.14	Have you contacted companies who could respond immediately in case of a disaster? ☐ yes ☐ no
D.15	What kind of service can they offer? ☐ transport ☐ equipment ☐ freezing ☐ others
D.16	Do you have updated lists of staff to contact in case of an emergency or a disaster? ☐ yes ☐ no
D.17	Have technical recommendations been written concerning the rescue of damaged material? \Box yes \Box no
D.18	Is a member of your staff responsible for the disaster plan and its implementation? \Box yes \Box no
D.19	Name and position of this person (not compulsory):
D.20	Do you have emergency kits easily accessible? ☐ yes ☐ no
D.21	What kind of alarm systems do you have? ☐ against fire ☐ against intrusion
D.22	Are your alarm systems regularly tested? ☐ yes ☐ no
D.23	Is the building insured? ☐ yes ☐ no
D.24	Are the collections insured? ☐ yes ☐ no, why?
D.25	Are the equipment insured? ☐ yes ☐ no, why?
D.26	Which preventive measures do you consider most useful and appropriate in the event of a disaster? duplication of documents (collections, catalogues) and storage elsewhere sprinklers alarms keepers, regular rounds
E - Inf	formation about the person who filled in the questionnaire
E.1 E.2 E.3	Name: Function: E-mail:
E.4	Phone number:

APPENDIX G: Examples for Emergency Plans

Four selected pages from each plan should give an idea of the different approaches, show the recurrent elements and diverse outcomes of a planning process. These and other plans are available online.

National Library of Brazil (total pages: 102)

National Library of South Africa (total pages: 7)

A list of links to these and more emergency plans is inserted after the sample plans.

Jayme Spinelli José Luiz Pedersoli Jr.

National Library of Brazil Risk management plan safeguard & emergency



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	4. Respond	
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	3. Reducing risks to BN's collections and building, by agent of deterioration/	
	generic risks, and the 5 stages of control for each risk	
	1°. Physical forces	
	2°. Criminals	
	3°. Fire	
	4°. Water	
	5°. Pests	
	6°. Pollutants	
	7°. Light, UV and IR radiation	
	8°. Temperatura incorreta	
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II. Objective and scope

The objective of the present plan is:

"to convey the collections and historic building of the Brazilian National Library to future generations with the least possible loss of value".

This objective will be achieved by continually assessing and treating risks to the BN collections and main building, from emergency and catastrophic events to continual deterioration processes.

The plan encompasses all cultural property under permanent or temporary custody of the Library, located at its headquarters at Avenida Rio Branco 219, Rio de Janeiro - Brazil. This includes the BN main building and the collections, physical and digital, housed therein. A smaller number of collections located in the annex to the main building, and inside the building of the Palácio Gustavo Capanema (Rua da Imprensa 16, Rio de Janeiro), is also within the scope of the plan. The safeguarding of items on loan or exhibition elsewhere, as well as of digital collections remotely stored and managed by specialized service providers, is assured by the respective policies, procedures, and contracts. Therefore, these items are out of the scope of the plan while outside the Library.

Institutionally, the plan spans all levels and sectors of the BN, aiming to promote collaboration and synergies among them and thus ensure that its objective is reached as efficiently as possible.

The expected duration of the plan is indefinite, i.e., it is meant to be used permanently by the BN as an integrated preservation and management tool.

III. Implementation requirements

The requirements for the successful implementation of the Risk management plan – safeguard & emergency include:

- Institutional commitment at all levels, in particular from the Presidency and the upper management of the different sectors of the BN;
- Proactive attitude of all staff to develop a "risk management culture" in the institution;
- Formal establishment of an internal multidisciplinary team that will be responsible for the implementation of risk management in the institution;
- Availability of resources to implement risk treatment measures, according to the degree of urgency and prioritization determined through risk assessment;
- Continual monitoring, documentation, and review of the execution of the plan, which will be systematically updated as needed or at preestablished regular time intervals (for instance, every 6 months);
- Continual communication and consultation with stakeholders, ensuring an inclusive and participatory process, and maximizing the use of available information and knowledge.

NATIONAL LIBRARY OF SOUTH AFRICA

DRAFT DISASTER RECOVERY PLAN - COLLECTIONS

DATE WRITTEN: August 2010 (revised 29 Oct)

APPROVED BY: Management Team

DATE APPROVED:

HARD COPIES AVAILABLE AT:

- Security (both campuses)
- Finance (both campuses)
- Campus Secretary (both campuses)
- Stack Management (both campuses)
- Programme Executive: Preservation Services

PURPOSE

• To provide guidelines for the prevention and appropriate response to disasters effecting the collections of the National Library of South Africa

SCOPE

- Collections (not emergencies in general and ICT)
- Both campuses (Pretoria and Cape Town)
- Disaster management: Prevention, Preparedness, Response and Salvage

CAMPUSES / BUILDINGS

- Pretoria Campus: Main Library, LIASA house (no collections)
- Cape Town Campus: Main Library, Centre for the Book, Slotzboo, Metrofile

COLLECTIONS

- Legal Deposit Books
- Legal Deposit Periodicals
- Legal Deposit Newspapers
- Legal Deposit Government Publications
- Map collections
- General collections
- Foreign Official Publications
- Special Collections

PRINCIPLES

- never endanger the lives of staff or patrons
- disaster plan should be integral part of organisational processes
- be part of decision making
- be based on best available information

- take into account the human factor
- be transparent and inclusive
- be capable of continued improvement and enhancement
- important characteristics: comprehesiveness, simplicity and flexibility
- seek ways of cooperating with national disaster plans and other libraries and cultural institutions in the region
- consult with the fire brigade, police and civil security

AUTHORISATION & RESPONSIBILITY

- Programme Executive: Preservation Services
- Disaster co-ordinators at both campuses

RESPONSIBILITIES

- Preservation Services must ensure that the disaster plan for both campuses is tested and in place.
- Management must ensure that funding and budget is available to implement the disaster plan.
- Facilities Management must ensure that backup power generators are maintained and available to ensure power supply during emergencies.

DEFINITION TABLE

DISASTER	An incident caused by accident, natural causes, or deliberate intent resulting in serious damage or destruction to records and facilities or major disruption of operations and services.
LIBRARY DISASTER	An unexpected event that puts collections at risk
DISASTER PLANNING	A matter of basic security for libraries, their staff and their collections
PREVENTION	Measures taken to eliminate or reduce risks
DISASTER RECOVERY (SALVAGE)	Retrieval and preservation of collections damaged by a disaster
RISKS	A future happening that can be avoided
RISK MANAGEMENT	The identification, assessment, prioritization and mitigation of risks

PREVENTION

TASK	TASK NAME	DESCRIPTION
A001	Identify risks	Identify risks posed by buildings, equipment and fittings, natural hazards (climate) of the area. Check part of buildings known to be problematic. Hazardous materials (gas cylinders, chemicals).
A002	Inspections	Carry out regular inspections of library buildings (building safety checklist) and alter factors that constitute a potential hazard.
A003	Housekeeping	Establish routine housekeeping and maintain measures to withstand potential hazards.
A004	Building Maintenance	Regular maintainance of plumbing, electrical, automatic fire/smoke detection/safety devices, fire extinguishing systems (automatic and manual), water-sensing alarm systems, generator, alarm systems (fire and intrusion), emergency exits, emergency lighting, fire doors.
A005	Enforce policy	Enforce library policy on food and drink in designated areas.
A006	Stack Maintenance	Maintain scheduled program of stack maintenance involving dust control, cleaning and managing stack capacity.
A007	Environment	Maintain a stable climatic environment in buildings.
A008	Fire-prevention	Establish and maintain a good <u>fire-prevention</u> programme (in consultation with fire brigade).
A009	Building renovations	Take special precautions during unusual periods of increased risk, such as building renovations.
A010	Exhibitions	Make special arrangements to ensure the safety of collections when exhibited.
A011	Insurance	Consider comprehensive insurance for the library, its contents, the cost of salvage operations, and potential replacement, rebuilding and restoration of damaged items.

PREPAREDNESS

B001	Planning	Develop a written preparedness, response and recovery plan.
B002	Disaster library	Keep central disaster library and documentation store for dealing with various types of disasters.
B003	Co-operation	Consult with local municipal disaster office and other cultural institutions (museums, archives) and libraries in the region.
B004	Review and testing	Review and update disaster plan regularly and test.
B005	Disaster supplies and equipment	Maintain and monitor disaster supplies and equipment.
B006	Disaster Co-ordinators	Appoint disaster co-ordinators at both campuses.
B007	Disaster Team	Establish and train in-house disaster response team.
B008	Generator	Maintain and test emergency generator.
В009	Training	Train disaster response techniques (involve staff).
B010	Critical switches, equipment.	Keep floor-plans with locations of cut-off main switches (water, sprinklers, electric) and valves, master key, radios, first aid, PA system, rescue equipment, portable pumps, generator, disaster library.
B011	Contacts: Disaster Team	Keep list of contacts : disaster response team.
B012	Contact: Experts and services	Keep list of contacts: salvage experts and services, other institutions, disaster offices.
B013	Service agreements	Establish service agreements (e.g. freezing facility) with salvage services.
B014	Re-location site	Identify re-location site.
B015	Budget and Funding	Ensure that emergency funds are available (disaster supplies, equipment, services, consultants, refreshments, first-aid supplies). Ensure that disaster accounting procedures are in place.
B016	Insurance documents	Keep copies of insurance policies (buildings and collections).
B017	Priority collections	Identify high risk collections: establish priorities.

(all URL: 01.05.2018)

National Library of Brazil (Rio de Janeiro, Brazil)

https://www.ifla.org/files/assets/hq/topics/risk-register/documents/riskmanagementplanbrazil en.pdf

National Library of South Africa (Pretoria, South Africa)

http://www.nlsa.ac.za/downloads/NLSA DISASTER RECOVERY PLAN 2010.pdf

National Library of France (Paris, France)

http://www.bnf.fr/en/professionals/emergency_plan.html

Biblioteca Nazionale Centrale Firenze (Florence, Italy)

http://www.bncf.firenze.sbn.it/documenti/Piano_emergenza_30_06_2017.pdf?rigamenu=Piano%20di%20emergenza%20per%20il%20salvataggio%20delle%20collezioni

Alabama Public Libraries (Alabama, USA)

http://webmini.apls.state.al.us/apls_web/apls/docs/publications/Public%20Library%20Sample%20 Disaster%20Plan%20March%202009%20edition.pdf

Harvard Library (Massachusetts, USA)

http://library.harvard.edu/preservation/emergency-preparedness-plan

CoOL list of disaster plans

http://cool.conservation-us.org/bytopic/disasters/plans/