BURNING LIBRARIES: A REVIEW THROUGH THE LENS OF HISTORY

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The story of ancient libraries is the most interesting aspect of World history of libraries. Some key events from the history of libraries involving 'burning of libraries' are mentioned in this paper. Through libraries, the society has preserved its cultural heritage. Sometimes a library is deliberately damaged as a plan of cultural cleansing. Library fires have appeared over the ages. Several public libraries as well as private libraries were destroyed and dispersed by the ignorant invaders. This historical review throws the light on destruction of ancient libraries throughout the world.

Keywords: Library Fire; Book Burning; Library Destruction; Ancient Libraries.

INTRODUCTION

When man was nomad, he used to wander from one place to another in search of food, shelter and clothing. In olden days, man discovered fire, wheel and various tools to make his life easy. His way of searching was very simple. He gained knowledge from Nature and society. He has developed methods of recording his experiences through clay-tablets, wax-tablets, papyrus sheets, parchment rolls, paper, books and other multimedia equipments. The invention of alphabets and printing technique have played a very important role in the establishment of libraries. Through libraries, the society has preserved its cultural heritage.

The human society cannot survive without being fully familiar with all the past intellectual contributions of human beings, as well as without being update with the ever-growing knowledge in all fields of human activity. It is an endless process getting complex from compound day by day. The libraries are the institutions which the modern humans have discovered to overcome this complexity. Therefore, the humans have to assimilate and utilize the oceanic knowledge, so essential for the human welfare, at large.

The story of ancient libraries is the most interesting aspect of World history of libraries. A cursory survey of the history of ancient libraries raises several questions as to their fate including origins, developments and destructions. Several public libraries as well as private libraries were destructed or dispersed by violent crowd and ignorant attackers and invaders, i.e. Mongols, Turks, Berbers in the West, and Tartars in the East [1].

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BURNING OF BOOKS AND LIBRARIES

The action of destroying books by fire is known as *libricide* or *biblioclasm*. The burning of books as an instrument for regulating knowledge or information may be observed all over history. There are various forces of Nature and society which lead to damage of books, but among them all fire is the most dangerous [2]. Libraries have been accidentally or purposely burned or badly destroyed. Sometimes a library is deliberately damaged as a plan of cultural cleansing [3].

Library fires have appeared over the ages, famous instances are the damage of Nalanda Library in Bihar, India; the burning of Library of Alexandria, Egypt; and the destruction of the Duchess Anna Amalia Library, Germany. Reasons alter from burning to the solar rays setting fire to printed papers by using a magnifying glass, as took place to a library in Northam in England. Several examples are there of fortuitously destructed libraries by humans. At many occasions libraries were destructed by environmental calamities such as floods, accidental fires or earthquakes. It would be hard to compile a bare list of libraries and bibliographical archives which, in one way or another, have been ruined by the Fire. An attempt has been made to prepare a list of historical events of burning of libraries.

Xianyang Palace and State Archives

The Qin Dynasty was the first imperial dynasty in the history of China, which was founded in 221 BC by Ying Zheng, historically known as Qin Shihuang. Qin dynasty was the shortest dynasty in Chinese history which ruled Chine only for fifteen years. Situated on the North side of the Wei River, Xianyang was the Imperial capital of the Qin dynasty. In 206 BC, Xianyang Palace (or Epang Palace) and State Archives in China had been burned down by the Xiang Yu, fighting against Emperor Qin Er Shi, directed his soldiers into Xianyang. He instructed the troops for devastation of the Xianyang Palace by flame.

Under the proposal of Li Si, in 213 BC, Qin Shihuang, the First Emperor commanded the burning of all records of historians except the official philosophy of Qin government. Almost all the texts of Zhou era including the literature, culture, and scholarly works were burned down. In the Qin Shihuang's latter periods, he was inclined to the notion of obtaining immortality. He assembled many alchemists to create an elixir, a medicinal and magical potion, for king. In 212 BC, two alchemists who were acquainted with Confucian scholars grumbled that the First Emperor was cruel, dictator, and autarchic. The First King was angered by their betrayal and ordered the censors to investigate the scholars, and finally about 460 scholars were buried alive [4].

Ancient Library of Alexandria

The Ancient Royal Library of Alexandria in Egypt, which is also known as the Alexandrian Museum founded in nearly 290 BC, was the world famous library of Classical antiquity and artifacts. The museum was constructed by the "Ptolemy I Soter, who was a Macedonian general and the successor of Alexander the Great" [5]. The Museum was devoted to the nine inspirational goddesses of the science, literature, and the arts, named as the Muses in Greek mythology [5]. The library was a section of a bigger museum/research institute known as the "Musaeum of Alexandria," where several renowned thinkers and philosophers of the ancient world studied. It blossomed under the aegis of the Ptolemaic empire and worked as a leading institution of education from its development in the third century BC. An inscription above the racks recorded as "The place of the cure of the soul" [6]. The library was unquestionably one of the "greatest cultural adornments of the late ancient world, containing thousands of scrolls of Greek, Hebrew and Mesopotamian literature and art and artifacts of ancient Egypt" [7].

There were innumerable distinguished philosophers and authors who studied in Alexandria. The mathematician and astronomer Eratosthanes taught that "the earth was a sphere" and calculated its circumference. Archimedes was a scholar at library, and Euclid penned his signature book "Elements" there. "The pharaoh Ptolemy II called seventy Jewish intellectuals to translate the 'Pentateuch, the first five books of the Bible,' from Hebrew into Greek, producing a work called the Septuagint" [8].

There was no idea of printed books in ancient era. Papyrus was prepared from reeds gained from the beaches of the Nile River. They were hammered to make them flat so that the water elements bound the fibers, and later dehydrated them. Finally the sheets were prepared for writing. Many sheets were sewed together, wrapped around a center pole, and tie on a describing mark, which might be author and title of work. This called a scroll, which could be around one-tenth the length of an

average book. Scrolls were placed in horizontal position in a heap on the shelves, while books are kept in vertical position. To take a scroll, one had to disorganize the other scrolls.

It is nearly impossible to estimate the size of collection in an ancient library with any certainty. The quantity of reading items and books in the library is varied according to different authorities. The earliest existing number, from the third century BC, is estimated as "more than 200,000 scrolls," while the medieval work of John Tzetzes (John Tzetzes was a Byzantine didactic poet and intellectual who also conserved much valuable information from ancient Greek literature and scholarship, in which he was widely quoted and cited) reports "42,000 scrolls in the outer library; in the inner (Royal) Library 400,000 mixed scrolls, plus 90,000 unmixed scrolls." A still greater evaluation of 700,000 was estimated between the second and fourth centuries BC [9]. Maximum items were stored as "papyrus scrolls." It is unexplained that how many papyrus scrolls were kept at any given time, but counting "range from 40,000 to 400,000 at its height" [9].

There is extensive controversy among the historians on when and how the library of Alexandria was burned. Many Greek scholars and authors about the fifth century BC started to develop philosophy and history, and the clues strongly recommend that they had their own libraries. The great philosopher Aristotle, who was the educator of Alexander, owned a private collection of nearly 400 scrolls. This collection was one of the greatest in ancient era. While Alexander moved towards India, he appointed many managers in the archives and libraries of the regions he captured to study local records, rules and laws to measure the best ways of governing each country. Ancient literary sources reveal the four major possible events for the ruin, either partial or full, of the Library of Alexandria [7, 10]. They are as follows:

- **Julius Caesar's Fire:** In 48 BC, during the Civil War of *Caesar*, army of the *Julius Caesar* was attacked at Alexandria. Several antique texts mentioned that "Caesar setting fire to his own ships" [11, 13] and described that the same

fire destroyed the library. Several scrolls were robbed by army and took them to Roman Empire.

- **Attack of Aurelian:** *Lucius Domitius Aurelian* was the 44th Emperor of Roman, who reigned during the period of 270 to 275 AD. *Aurelian* invaded Egypt to end the revolt by the *Palmyra's Queen Zenobia*, who ruled Egypt during 269-274 AD. Most of the collection in the library of Alexandria was set to fire. It was located in the district of Brucheion. Whether the fire burned the whole collection or whether some segment of library were unknown [8].

- **The decree of Coptic Christian pope Theophilus of Alexandria:** Alexandria, the biggest town in the western part in ancient era, was the center of the papyrus production and the house of book industry. A small "daughter library" was developed in the *temple of Serapis* in the *Brucheion* district about 190 BC. The *Serapeum* of Alexandria in the Ptolemaic Empire was an ancient Greek temple constructed by *Ptolemy III Euergetes*, who ruled during 246-222 BC, and dedicated to Serapis, who was made the patron of Alexandria. As Christianity dominated in that area, the Christians felt uneasy with pagan temples full of pagan documents. Pagans were the followers of a polytheistic religion in the ancient Rome and Greek. The term paganism first used in the "fourth century by early Christianity for populations of the Roman Empire who practiced polytheism, either because they were increasingly rural and provincial relative to the Christian population or because they were not *milites Christi*, who were soldiers of Christ" [12]. In 391 AD, *Theophilus*, who was the patriarch of Alexandria, ordered a troop to damage the Serapis' Temple, probably at the same time damaging whatever documents were removed from the "daughter library." This was described as a huge conquest of the Christians over the pagans [14].

- **Muslim conquest of Egypt:** Around in 642 AD, Alexandria was conquered and occupied by the Muslim force of *"Amr ibn al-As."* Amr was the General in Arab army. Later many Arabic documents described the destruction of the Library by "the order of Caliph Omar" [15]. A

text of the thirteenth century, *Bar-Hebraeus,* writes Caliph Omar as saying to "Yaḥyā al-Naḥwī: If those books are in agreement with the Quran, we have no need of them; and if these are opposed to the Quran, destroy them" [4].

Library of Antioch

The Royal Library of Antioch in ancient Syria was proposed and established by Antiochus III of the Seleucid Kingdom, which was a successor state of Alexander's Empire, nearly 221 BC. A Greek philosopher, poet and grammarian, named Euphorion, welcomed the proposal offered by the emperor and founded the Library. Till his death, Euphorion worked as librarian in the royal library.

The Royal Library of Antioch was destroyed by fire by the Christian Emperor Jovian during 363-364 AD. The Library had been massively collected the "unholy" pagan documents with the help of his non-Christian antecedent, Emperor Julian. This library also collected the pagan literature of the library of George, Arian Bishop of Alexandria, equally disliked by both pagans and Christians, who was killed by an Alexandrian pagan troop in 361 AD.

Nalanda University Library, India

The Nalanda University was originally founded during the Gupta period in the fifth century AD by Gupta Emperors. It had three nine-storey buildings namely- Ratnadadhi, Ratnasagara, and Ratnaranjaka. Each building contained a huge collection of reading materials that covered many subject fields like astronomy, astrology, mathematics, politics, ayurveda, medicine, fine arts, literature, grammar, logic and many more. The Nalanda library must have used a scheme of classification which was probably based on a text classification scheme devised by the Sanskrit scholar Panini [16]. The University developed under the aegis of the Gupta Kingdom in the fifth and sixth centuries and later under Harsha, the King of Kannauj.

Initially the Nalanda was a wealthy village by a main business route that ran across the nearby city of Rajagriha (now Rajgir) which was then the capital of Magadha Empire [17-18]. It is believed that the Jain Tirthankara, Mahavira, lived fourteen rainy seasons at Nalanda. Gautama Buddha too is considered to have delivered speeches in a nearby mango grove named Pavarika and one of his student, Shariputra, was born in the area and later attained nirvana there [19]. This traditional union of Buddha and Mahavira delicately dates the existence of the village to at least the fifth to sixth century BC.

The Nalanda University was destructed thrice by attackers, but reconstructed only two times. The first destroy was done by the Hunas under Mihirakula during the rule of Skandagupta (455-467 AD). But successors of Skandagupta rebuilt the library and developed it with an even larger building. The second destruction was caused by the Gaudas in the early seventh century and after sometime the Buddhist Emperor Harshavardhana (606-648 AD) reconstructed the university. The third and heavy damaging attack came while the old Nalanda University, world famous centre of Buddhist knowledge, was destroyed by the Turkish Muslim invader Bakhtiyar Khilji in 1193. This unfortunate milestone event was the main cause behind the decline of Buddhism in India [20]. It was a main centre of knowledge and study from the fifth century CE to 1200 CE and now included in the "World Heritage Site of the Unesco" [20].

It is believed that Bakhtiyar Khilji had suffered from illness and doctors in his darbar were not able to treat him. Then, someone opined him to go to Rahul Sri Bhadra, the chief of Nalanda University for treatment. Khilji was very proud on his religious culture and denied to go for a treatment by an individual other than his Islamic religion. But his health badly declined and he had no other option but to call Bhadra from Nalanda University. He set a condition and asked Bhadra to treat him with no medicines. Bhadra then replied Khilji to read some pages of the Quran as a cure for his sickness and to everybody's miracle Khilji was well treated. Upset by the experience that a Hindu doctor and scholar had more knowledge than the doctors of his darbar, Khilji determined

to sabotage the soul of knowledge of ayurveda and Buddhism from the Indian soil. He burned the huge library of Nalanda and destroyed about nine million manuscripts. The library was so broad and strong that it consumed three months to destroy it completely. The Turkish attackers also killed Buddhist scholars and monks in the Nalanda University.

It is generally accepted that Buddhism as a main religion in India faced a trouble for centuries due to the destruction of the religious literature during the attacks, and since then the University has not been restored till the current development. The newly constructed campus spread over 455 acres in Rajgir city of Bihar, Nalanda University began its academic session on 1 September 2014 with 15 scholars from all over the world.

Library of Congress, Washington, DC

The Library of Congress, situated at Washington, DC and established in 1800, was first destroyed by the British Army in 1814 and almost 3000 books were damaged by fire. Thomas Jefferson proposed an offer to deal his private collection to the Library Committee of Congress in order to reconstruct the Library of Congress. On 30 January 1815, President James Madison passed an act of Congress nearly $23950 to buy Thomas Jefferson's collection of 6487 books. After the packing and transporting of his books, Jefferson pointed out to his friend, S.H. Smith, who was the editor of the "National Intelligencer," that "an interesting treasure is added to your city, now become the depository of unquestionably the choicest collection of books in the US, and I hope it will not be without some general effect on the literature of our country" [21].

On 24 December 1851, in the evening of Christmas, the heavy fire in the history of Library burned down nearly 35000 volumes, approximately two-third of the LC's 55000 volumes, containing two-third of Jefferson's collection. In 1852, LC promptly allowed $168700 to rebuild and substitute for the destroyed collection, but not for the purchasing of new books. This indicated the beginning of a conservative era in the Library administration under J.A. Pearce, Joint Committee Chairman, and J.S. Meehan, Librarian, both functioned to confine the activities of the LC [22].

Jewish Theological Seminary Library, New York

The Jewish Theological Seminary of America Library tower, situated at Broadway and 122nd Street in New York City, was put on fire on the 10:15 morning of 18 April 1966. This fire was extinguished and controlled after nine hours on the 7:00 evening. The library had few small windows, no floors for dividing different storey, steel racks surrounded by footways, and this all made the perfect environment for a major firestorm. The library became like a kiln and the fire transmitted promptly. Controlling the fire was very tough because the library had only one entry, stairwell from the bottom and limited window access. At that time, the chief librarian, Menahem Schmelzer, along with the future Chancellor of the JTS, Gerson Cohen, and the Fire chief, Alfred Eckert, initial moved into the damp and charred racks. The fire had been restricted mainly to the upper stacks, which held usually extra copies of books. Nevertheless few significant volumes recently acquired had also been stored there. In the fire extinguishing process, water had led to excessive destruction and the increase in fungus and mould warned to do more. After discarding many techniques for drying the water-saturated volume of books, the hint was suggested by the then Vice Chancellor of the JTS, Rabbi D. Kogen, to keep paper towels between the leaves of every book to soak up the wetness. Many volunteers of all groups and ages were selected from around the near regions and Jewish day school scholars were called to support. The paper towels were given by local suppliers and retailers.

About 70000 books were completely burnt by the conflagration and much more were destroyed. The manuscripts and rare books of the library, which were kept elsewhere, were protected. The whole collection of the library was reassembled with the aid of charities and donations from institutional and private libraries. The collection was shifted to pre-constructed premises in the JTS forecourt that continued till a new library building was constructed in 1984. Now the library has more than 400000 volumes. With the help of the Horace W. Goldsmith Foundation, 35000 books that were protected from

the flames of fire and kept in highly dense storage are being catalogued and restored [4].

Jaffna Public Library, Sri Lanka

The Jaffna Public Library started as the intellectual K.M. Chellapha's personal collection. In 1933, he started issuing books from his house. A local committee, whose secretary was K.M. Chellapha, constituted a formal library in 1934. At that time around 1000 volumes of books, periodicals and newspapers were housed in a room. After some time the library was moved to a separate library building located in the main street of Jaffna.

The Jaffna Public Library, which is situated at Jaffna, Sri Lanka and managed by the Jaffna Municipal Council, was established in 1933. A well-organized violent crowd of Sinhalese people vandalized and fired the library on the night of 1 June 1981. The fire of the Jaffna Public Library was a main historical and cultural unfortunate event happened during the Civil War in Sri Lanka. This library was one of the largest in the Asian continent. It is the second largest public library in Sri Lanka after the Library in Colombo. At that time, it had about 97000 manuscripts and books, some of them were literally irreplaceable and culturally important [23]. Few of them were written on palm-leaves and kept in perfumed sandal wood cases. Some rare documents were: (i) Miniature editions of the Ramayana epic, (ii) The only existing copy of the Yalpanam Vaipavama, a history of Jaffna, (iii) Records of the Morning Star, a periodical publication of the missionaries in the early 20th century, (iv) Microfilms of important materials, and (v) Antique collection of Newspapers of Tamil language. Reformation of the library was finished in 2001. New volumes of books were received nevertheless its old collection of manuscripts and books were not removed.

Percy Mahendra Rajapakse, the President of Sri Lanka once said in 2006 that, "burning the Library sacred to the people of Jaffna was similar to shooting down Lord Buddha" [24].

Sikh Reference Library, Punjab

The Sikh Reference Library, situated at Amritsar, Punjab was founded in 1946 vide resolution number 822 dated 27 October 1946, of the "Shiromani Gurdwara Parbandhak Committee" (SGPC). According to S.S. Jhand and S.S. Shaharyar, famous scholars of Sikhism, "the credit for establishing the library goes to the SGPC, but a significant role was played by the Sikh Historical Society, established in 1930 at Lahore under the leadership of Bawa Budh Singh" [25].

In the evening of 6 June 1984, Sikh Reference Library in Golden Temple (Harmandir Sahib), Amritsar, Punjab was badly destroyed by Army in Operation Bluestar. The Army replied that the library captured by fire during the reciprocal firing with extremists, who had sheltered in the Golden Temple's premises. The library housed more than 1500 priceless scarce manuscripts, volumes of the "Adi Granth, and Damdami Bir (dated Bikrami 1739)" and several invaluable paintings [25]. What truly happened to the Sikh Reference Library is still unclear?

This library is only meant for the research scholars in the field of Gurbani, Sikh history, religion and culture because the reading materials are not permitted to be taken outside the library. Presently about 30000 volumes of books, journals, magazines, and newspapers on Sikh religion, history and culture; hand written copies of Guru Granth Sahib, Hukmnamas; and some scarce manuscripts are housed for the research purpose. Few of them were signed by the adored Sikh Gurus, and some rare materials related to the India's struggle for Independence.

USSR Academy of Sciences' Library

The newspaper section located at the third floor of the Library of the Russian Academy of Sciences (earlier known as the Library of the USSR Academy of Sciences) hit by the worst fire on Sunday, 14 February 1988. Valeriy Leonov, the then acting director of the Library, wrote that the fire alarm noised when the library was closed for readers, at night around 8:13 [26]. This fire was put out in the next afternoon, till it had destroyed approximately 3 to 4 Lakh volumes of the total 1.2 Crore collections. Nearly 35 Lakh books initially became damp due to fire-fighting foam. Most of the damaged and lost volumes were international publications of science and technology books.

The first fire fighter machine reached eight minutes after the fire alarm sounded off. But, it took

about two hours for the fire extinguishers to reach the fire itself [26]. The fire was initially managed by the 9th Fire Extinguishing Company that was coupled by the members of other fire fighters. The volumes deformed by fire extinguishers were first frozen, and later a radio announcement was telecast for people to dry the damp and damaged volumes in their houses. Ninety Three percent of the damp and damaged volumes had been dried and brought back to the library up to the end of March 1988. Nearly 10000 volumes, however, became mouldy.

The Duchess Anna Amalia Library, Weimar, Germany

The Duchess Anna Amalia Library, which is named for Duchess of Saxe-Weimar-Eisenach Anna Amalia, who managed in 1766 for the graciously book collection to be shifted into the library, and located at the main building in the Green Castle, Anna's abode, which were built during 1562 to 1565 in Weimar, Germany. The library stored a vital collection of historical documents of German literature including a sixteenth century Bible related to Martin Luther, the Duchess's important 13000 volumes music collection, the world's richest Faust collection, and a critically important Shakespeare collection of about 10000 books. During the Second World War, the collection was moved elsewhere to protect it from Allied bombards.

On 2 September 2004, a segment of the collection was destroyed by fire, which burned 50000 books of which 12500 are judged as unique and irreplaceable. About 6000, however, historical documents were protected, including the "1534 Luther Bible" and a collection of "Alexander von Humboldt's papers," by shifting from hand to hand out of the library. Some 28000 volumes in the library were saved and so unaffected by the flame. Other materials, for example 35 historic oil paintings and death mask of Friedrich Schiller were also damaged. The conflagration happened as a scheduled tragedy, since the collection was planned to shift on a different place in October 2004. Several destroyed volumes were freeze dried in Leipzig to protect them from rotting as an outcome of water loss. Book protection plan was carried out till last 2015. In June 2005, it was declared that among the books that were issued and out of the library at the time of the burning, and hence protected from loss,

there was an unexplored 1713 aria by J.S. Bach entitled as "Alles mit Gott und nichts ohn' ihn." The library building was reconstructed by US$ 18.2 million and restarted in October 2007 with a collection of 60000 books [4].

In 1998, the historic library along with Rococo Hall declared a UNESCO's World Heritage Site. Presently the library, as a public research library for art, history and literature, serving the residents whose key focus are on German literature related to the late Romantic and the Classical periods [27].

Northam Public Library, England

Northam, a small city in Devon, England has a public library. In 2005, the library building was destroyed by fire. Ninety percent volumes of books considered to have been burned due to the action of a magnifier lens on a pile of leaflets [4].

University of Mosul Library, Iraq

The University of Mosul Library in Iraq, which is located near the Tigris River and was one among the best in the Middle East, contained more than one million documents, including books, centuries-old antique manuscripts, and valuable historic maps. The University was established in 1967 and later about sixty personal collections and libraries were donated their invaluable books and reading materials to the current university library. There is an excellent proverb in the Middle East, "books are written in Egypt, printed in Lebanon, and read in Iraq" [28].

Mosul library recently was damaged by the ISIS troops. In December 2014, as the Iraqi force attacked into Mosul, ISIS warriors had burned the library. The books had lightened as kindle. Perhaps this event of books burning was the first ritual ceremony that ISIS carried out. ISIS militants vandalized and looted the newly-constructed chemistry and physics departments including its own laboratories, and libraries. The library of Islamic studies, which stored worthless antique manuscripts, did not harm at all.

Mosul Public Library, Iraq

The Mosul Public library was founded in 1921. The library was considered as an emblem of

the birth of modern Iraq. On 22 February 2015, militants of the Islamic State badly burned the library, considering a massive cultural destruction. According to the Director of the Library, Ghanim al-Ta'an, "ISIS militants bombed the Mosul Public Library. They used improvised explosive devices." ISIS, after controlling a large area in Iraq and Syria, has sabotaged many culturally and historically important monuments, for example antique statues, churches, and Shia tombstones declaring that they were non-Islamic. The ISIS militants did not destroy the Islamic documents.

DISASTER MANAGEMENT IN MODERN LIBRARIES

Information and communication technology is a different impetus for attentive fire safety. Among several computer systems in libraries there is "a decrease in floor space and an increase in more compact and powerful computer systems" which produces more heat and needs the application of many more channels, enhancing the quantity of potential ignition sources. From the late 1950s and early 1960s, the hidden risks of computer machine, and the facilities that contain them, were identified. Therefore, the National Fire Protection Association in the Unites States started preparing the first safety standards especially for the electronic computer machines in 1962 and called them "NFPA 75 Protection of Information Technology Equipment" [29].

Advancement in technology has also decreased the possibility of collection of a library being damaged by fire. These include fire alarms, emergency generators, smoke detectors, suppression systems, fire doors, freezers, and water sprinklers. Air conditioners have eliminated the fungus problems. These are all necessary elements of new library building. All libraries require a recovery and disaster management plan in order to reduce the chances of destruction by fire, or other reasons, and minimize the time required for recovery after a damaging event. It should be a regular process which will contain professional development, maintaining and checking disaster kits, updates in technology for professional staff, training for the library staff, and the continuous review of the recovery and disaster management plan.

CAUSES OF FIRE BY HUMAN ACTIONS

Fire is the most dangerous natural element affecting safety in libraries. Fire can outcome from natural events such as earthquakes and lightning; or from unnaturally man made circumstances such as arson, terrorist attacks, or wars. However, the main risk of fires in libraries is caused when the standards of fire safety are neglected.

Smoking by library staff and users inside or near the library premises is the clear and primary fire risk, which should be stopped immediately. Carelessly thrown cigarette, beedi and matchstick could be harmful to a library. Defective electrical wiring in old library buildings can cause a sudden fire. Some electrical equipment, to name a few, tea and coffee making machines, lights on extension cords, and portable heaters may create fire risks [30].

RULES AND STANDARDS FOR FIRE PROTECTION

Several developed countries have standards and regulations that spell out requirements of building construction focused at eliminating the risk of fire destruction in libraries. Security of life and the library's collections are the top most priorities of the library. Since the reading materials in the forms of books and journals are burnable and in such larger number, the risk of a fire beginning and expeditiously transmitting in the Library is especially high.

The Technical Committee ISO/TC 46, Information and documentation, of the International Organization for Standardization (ISO) prepared the standards ISO: 11799 in 2003, and revised in 2015 (Information and documentation- Document storage requirements for archive and library materials), which specifies "the characteristics of repositories used for the long-term storage of archive and library materials. It covers the construction and renovation of the building and the installation and equipment to be used both within and around the building" [31].

Occupational Safety and Health Administration (OSHA) enforces certain standards developed by the National Fire Protection Association, which is the main American organization that develops and establishes standards for the fire protection community, in the United States to ensure the health and safety of workers. For

example, NFPA 13 establishes standard instructions for the design, installation, and testing of sprinkler systems. Another instance is NFPA 25, which establishes standards on how to inspect, test, and maintain a building's water-based fire protection system(s). NFPA standards require the installation of a water-based fire sprinkler system in all of the Library's buildings [32].

The fire safety is covered by about seventy pieces of fire safety legislation in the United Kingdom, the main ones being "the Fire Precautions Act 1961" and "the Fire Precautions (Workplace) Regulations 1997/1999." In 2001, it was decided the legislation needed to be simplified. This was achieved with "the Regulatory Reform (Fire Safety) Order 2005" [33] in England and Wales. British Standards, Codes of Practice and other guidance documents support this legislation. UK's Fire Safety Advice Centre provides free fire safety and fire prevention advice. Its resource library offers fire safety information as well as fire safety videos.

In India, standard for fire safety in libraries and archives was prepared in 1985, known as IS: 11460 entitled "Code of Practice for Fire Safety of Libraries and Archives" and revised in 2005. The Indian Standard was adopted by the India Standards Institution on 30 October 1985, after the draft finalized by the Fire Safety Sectional Committee had been approved by the Civil Engineering Division Council. The information regarding the library and archives buildings, i.e. construction, planning, and design has been covered in IS: 1553-1976 and IS: 2663-1977 respectively which also contain issues of fire protection. Therefore, both standards should be applied along with IS: 11460 standard which covers all the issues containing fire safety measures and fire protection of these buildings needed during construction [34].

CONCLUSION

There are two kinds of loss occurred in fires in libraries; first is literature loss, and second is social and cultural loss. Some part of history of society will be lost forever to future generations. The society without libraries is as a human body without heart. The society should learn from its history. With the continuous and exponential growth of literature in various formats in library, its protection from threats and weaknesses becomes crucial. As an inseparable part of the society, every library definitely needs a sound policy to protect it from internal and external threats. Few records and archives cannot be retrieved and replaced by any means; once they have been damaged, they are lost forever. Duplicate copies will not be found anywhere at any cost. Society has suffered some incredible losses from ancient times to the present, from the fire at the *Alexandria Library* in the Egypt to the fire at the *Mosul Public Library* in the Iraq.

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