FROM PRACTICE TO THE PRODUCTION OF KNOWLEDGE: LIBRARIES AND PRE-SCIENTIFIC LIBRARY SCIENCE

DA PRÁTICA À PRODUÇÃO DO CONHECIMENTO: BIBLIOTECAS E BIBLIOTECONOMIA PRÉ-CIENTÍFICA

DE LA PRÁCTICA HASTA LA PRODUCCIÓN DEL CONOCIMIENTO: BIBLIOTECAS Y BIBLIOTECONOMÍA PRE-CIENTÍFICA

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ABSTRACT: The inseparable relationship between libraries and Library Science leads to a reconstitution of the history of these institutions, starting with the earliest period, antiquity. This moment of writing birth of the first records of knowledge, and therefore the first collections. Both at this time and later in the Middle Ages, practices in the library environment precede systematized theories or structures of thought. The desire to guard and preserve is common in both the libraries of antiquity and in the libraries of the Middle Ages, which makes it possible to approximate these distinct moments under the name of a pre-scientific Library Science. For that, a bibliographical research is summoned by several authors who approach the history of the library, particularly, linked to those two moments. It is believed that to study this long period of history and of which Library Science is a part, would enable a greater understanding of Library Science, as well as their practices in libraries, especially in Antiquity and the Middle Ages.

KEYWORDS: History of library. Library Science. Librarian.

RESUMO: A indissociável relação entre as bibliotecas e a Biblioteconomia conduz a uma reconstituição da história dessas instituições, começando pelo período mais remoto, a Antiguidade. Momento este de nascimento da escrita, dos primeiros registros do conhecimento, e, por conseguinte, dos primeiros acervos. Tanto neste momento, quanto no posterior, a Idade Média, as práticas no ambiente da biblioteca antecedem as teorias ou estruturas de pensamento sistematizadas. O desejo em custodiar e conservar é comum tanto nas bibliotecas da Antiguidade como nas bibliotecas da Idade Média, o que possibilita uma aproximação desses distintos momentos sob a designação de uma Biblioteconomia pré-científica. Para tanto, convoca-se a partir de uma pesquisa bibliográfica diversos autores que abordam a história da biblioteca, particularmente, vinculada aqueles dois momentos. Acredita-se que, perscrutar este largo período da história e da qual a Biblioteconomia faz parte, possibilitaria uma maior compreensão da mesma, bem como de suas práticas exercidas nas bibliotecas, em especial, na Antiguidade e na Idade Média.

PALAVRAS-CHAVE: História da biblioteca. Biblioteconomia. Bibliotecário.

RESUMEN: La inseparable relación entre las bibliotecas y la Biblioteconomía conduce a una reconstitución de la historia de esas instituciones, empezando por el período más remoto, la Antigüedad. Momento este de nacimiento de la escritura, de los primeros registros del conocimiento, y, por consiguiente, de los primeros acervos. Tanto en este momento, como en el posterior, la Edad Media, las prácticas en el ambiente de la biblioteca anteceden a las teorías o estructuras de pensamiento sistematizadas. El deseo de custodiar y conservar es común tanto en las bibliotecas de la Antigüedad como en las bibliotecas de la Edad Media, lo que posibilita una aproximación de esos distintos momentos bajo la designación de una Biblioteconomía pre-científica. Para ello, se convoca a partir de una investigación bibliográfica diversos autores que abordan la historia de la biblioteca, particularmente, vinculada aquellos dos momentos. Se cree que, escrutar este largo período de la historia y de la que forma parte la Biblioteconomía, posibilitar una mayor comprensión de la misma, así como de sus prácticas ejercidas en las bibliotecas, especialmente en la Antigüedad y en la Edad Media.

PALABRAS CLAVE: Historia de la biblioteca. Biblioteca. Bibliotecario.

1. INTRODUCTION

The Library Science, in their trajectory and understanding, can be seen in different ways, but the most common direction is usually to begin with the etymological explanation of their word, passing then through the history of libraries, their teaching, their research, among other aspects. The development of Library Science did not take place in an equal way in all countries, due to differences in needs and in historical contexts. The historicity of these library knowledge makes it possible to understand the different visions of the library, the librarian, and Library Science throughout history. However, independent of its secular development, the origin of Library Science has a common *arkhê*, in which the passage from an oral culture to a written culture is linked, which promoted the emergence of the writing supports, and therefore of the first collections of the earliest primitive libraries of antiquity.

This "primitive" term is related both to the chronological fact of the first existing libraries and to the rudimentary form of doing, which was guided by practice, and not by a theoretically systematized knowledge, that is, the action arose from the immediate need of that ancient moment. Among these acts, in antiquity, are the actions of organization and storage of knowledge records, from tablets to papyrus scrolls and parchment, as well as actions to preserve them. Such activities of organization can be seen as the first principles of Library Science. For many authors of the area, the libraries of antiquity constitute the very genesis of Library Science, since the need to systematize the knowledge for the purposes of organization, storage, preservation and recovery were put in that moment (LINARES COLUMBIÉ, 2004; ORTEGA, 2004; TANUS, 2015). To do them in an empirical way, without a systematized theoretical reflection that preceded the practice was part of this conjuncture, being able to call the field of Practical or pre-scientific Library Science (PULIDO, MORRILAS, 2010).

It is also considered that these library practices, even if rudimentary, but perhaps advanced for the time, constitute the first actions and knowledge, which would constitute centuries later, the specific field of knowledge, Library Science. On the history of libraries, in the period after antiquity, the Middle Ages, it is known that libraries did not change significantly, keeping their doors closed to the few privileged men, or rather, literate men (MARTINS, 2002). However, from a space of investigation and culture, as in the Library of Alexandria, in antiquity, medieval libraries became known as extensions of monasteries, convents, in general, religious orders. Knowledge, before universal pretension, was in the medieval reclusive in the domains of Catholicism and in the Latin language. Doing them in an empirical way still prevailed at that moment, being able to call the field of Practical (or pre-scientific) Library Science, as it was in antiquity.

For Pulido and Morrilas (2010), Library Science can be so named by three distinct moments, the first named pre-scientific, that goes from Antiquity to the end of the Middle Ages; the second moment, of proto-scientific Library Science that goes from the Modern Age

to the eighteenth century; and the third moment, inaugurated in the Contemporary Age, in century XIX, named of Scientific Library Science. The Modern Age had as one of the milestones the press of the movable types, which made possible the change of the manual production of the book to the printed one, and with this, a greater circulation of books and an increase of readers in addition to Bibles and the circle religious. The book then becomes felt as a necessity, reading and writing concomitantly become required and valued. However, it is worth noting that the introduction of printed books was not immediate in society, there was some fear of the art of printing, so many of the printed books carried the characteristics of handwritten books (EISENSTEIN, 1998).

The expansion of the Renaissance and secular culture also awakened the importance of books, increasing the activities of collectors, bibliophiles, and, consequently, a growth of private libraries. For the organization of the books, certain activities were emphasized, such as the production of bibliographies, catalogs and printed classifications. At that moment, the actions of "librarians" and philosophers in favor of libraries open to all and with organized collections stand out. Thus, libraries have gradually ceased to be seen as mere repositories of records, giving space to the image of the library as an institution capable of making the registers of knowledge available to readers, allied to this change is the increase in the complexity of thought, of production of specific works, which marks the configuration of a proto-scientific librarian (TANUS, 2015).

Thus, after these two moments of Library Science, a pre-scientific and a proto-scientific, Library Science begins the path of a scientific Library Science, in the Contemporary Age. As a result, it is due to the transformations and consequences generated by bourgeois and industrial revolutions that libraries become public and open spaces for society, for the people, leading to a change in the social function of the library quite distinct from other times, calling to an increasingly intense discussion of the role of libraries. In the field of science, Library Science, in turn, seems to follow the paths of the exact and natural sciences, with their scientific methods and rigor, with positivist thinking as a strong influence (ARAÚJO, 2017). Inspired by these sciences, positivism, the first stream of thought of the Social and Human Sciences, begun in the nineteenth century by Augusto Comte, also defended the rigor of method, observation, accumulation of facts, a ready and objective reality, so to speak of theology, metaphysics, and subjective aspects.

Finally, this long course of centuries of history makes it possible to affirm that libraries follow the changes of their time and the different contexts in which they are inserted: social, political, economic, cultural and scientific. And, like any other work that involves a bibliographical survey, this text requires a cut to be feasible, therefore, it was adopted as a focus to approach the history of libraries in Antiquity and in the Middle Ages, at which time the classification of Pre- according to Pulido and Morrilas (2010). In this direction, it is sought to bring more events related to this history, as well as to demonstrate other productions that are part of the construction of a practice developed throughout the centuries,

and that contribute to the later consolidation of Library Science as a scientific field, specifically, in the century XIX (TANUS, 2016).

Despite the long journeys of libraries, Linares-Columbié (2004) points out that there is a gap in the history of Library Science as an autonomous space of knowledge. Research on the production of library science shows that preoccupations with the empirical universe prevail, usually quantitative professional research, which turns to the work within the library space, moving away from abstract categories and theoretical research on your own field. Thus, it is believed that the exposure of knowledge developed about and from libraries, even if such productions are remote, is fruitful to bring about in order to better understand the historicity of libraries and the constitution of Library Science, or even who knows how to instigate the reading in full of the production of knowledge now identified and presented.

2 THE LIBRARIES IN THE ANTIQUITY

The most famous library of this period was that of Alexandria, a city of the same name that lay in northern Egypt, west of the Nile and the banks of the Mediterranean, a strategic space for the development of the city founded by Alexander the Great in 331 BC Its privileged location facilitated contact with other continents (Europe, Africa and Asia), through the port and sea routes, which allowed the entry and exit of people, products, goods, and of course many records of knowledge fruit of the action of man in materializing his actions. In addition to the easy entry and exit location, Alexandria was a fertile space, due to the abundance of water, for the birth of the main writing medium of the time, the papyrus, and the main support of the Library of Alexandria. This library, founded in the third century BC, idealized by Demetrius of Falera during the Ptolemaic dynasty, had the original aim of preserving the work of Aristotle and competing with Athens, the Greek city, the cultural and intellectual capital of that time (FLOWER, 2002; MANGUEL, 2006).

According to Jacob (2000), Aristotle (Greek philosopher and preceptor of Alexander the Great) was the first man to have assembled a collection of books, *collector librorum*, and to have taught the kings of Egypt a way of organizing a library in which an intellectual project. In a short time the Alexandrian library significantly expanded its intention, constituting a "universal library" of all registered knowledge, which marked the title of "Great Library" or "Knowledge Pole of the Western World" (CHAUI, 2010; FLOWER, 2002). In addition to the extraordinary quantity of papyrus scrolls, approximately seven hundred thousand of the most varied subjects, the library was a center of scientific investigation, which housed sages of letters, geometry, trigonometry, astronomy and medicine (CHAUI, 2010). In this hybrid space, Library and Museum of Alexandria lived together several scholars with the most varied interests, above all, with regard to the development of knowledge of the sciences and the understanding of the world around them.

The desire to encompass all available knowledge (of various languages and various peoples) in a single space has fostered various efforts for the expansion of the collection of this library, whether through acquisition, donation, copying or even theft of books of great value (JACOB, 2000). Flower (2002) reports that Ptolemy I (Stern) wrote to all the rulers of the four corners of the world asking them to send all kinds of works (poetry, prose, rhetoric, geography, medicine, astronomy). In this first moment, Fisher (2006) reports that the papyrus rolls were stored in shelves placed in niches that followed the extension of a wide and covered gallery. This concern in grouping the totality of human knowledge in order to make the library a kind of memory of the world boosted the rise of the written word and the expansion of written culture. "Above all, writing had stopped from just documenting and preserving, to legitimizing and validating knowledge" (FISCHER, 2006, p. 54).

Ptolemy II (Philadelphus) was also a "man of the letters" and continued with the desire to gather all registered knowledge and the constitution of a radiating pole of science and culture, attracting more scholars and acquiring more new works or copied works. It was during his reign that seventy Jews in seventy-two days translated the Bible from Hebrew into Greek, and this work is known as "Version of the Seventy" or "Septuagint." Already during the reign of Ptolemy III (Evérgeta) "nobody was able to read all the contents of the library" (FISCHER, 2006, p. 54). In addition, Ptolemy III decreed an additional measure, in which every ship that arrived in Alexandria should deliver its books for the copy, being these books well-known like "books of boat", which were returned many times the copies, being the library with the originals (FLOWER, 2002; CANFORA, 1989).

Thus, due to the extension of its collection, the Library of Alexandria was divided into "mother-library" and "daughter-library", the first one was next to the Museion, in the neighborhood of the Brunchium, and second, built during the government of Ptolemy III, in the neighborhood of Serapio. This library housed the duplicate works of the first library, as well as the plundered works of the Pergamon Library, by Mark Antony as a gift to Queen Cleopatra, his mistress. Although this library has been marked as a cultural and intellectual center, where several scholars from various areas of thought have developed their research, "the library was not intended for philanthropic and educational dissemination of knowledge in society, but for the accumulation of all writings of land, in the center of the royal palace "(JACOB, 2008), which reinforced the role of the library as State property, whose maintenance depended on the financing of kings. For this reason, the library grew because it received just real support, as an institutionalized national asset (FISCHER, 2006).

For Martins (2002) the library of Alexandria was equally celebrated not only for its number of volumes but also for the amount of disasters it had suffered over the years. In 48 BC there was the first accidental fire, caused during the stay of Julius Caesar, which, in order to prevent the maritime communication of its enemies, set fire to its ships, and which expanded to the library, burning the volumes of the first library. The second fire occurred in 272 AD by Emperor Aurelian, in war against Queen Zenobia, who devastated the region of

the Brunchium, and the daughter library, which had gained importance after the first fire. The third fire in 392 AD was aimed at the daughter library in Serapius and was provoked by the emperor Theodosius I. The last definite fire was related to the occupation of Alexandria by the Muslims in 642 AD, which led from the library's collapse with the burning of the books, according to the order of Caliph Omar I (BASTOS, 2008).

In addition to these libraries, other institutions even more remote, were also part of this ancient period in the regions of Babylon, Mesopotamia, Syria, Gaza, Greece and Rome, adding in the period from 1500 BC to 3000 BC in at least 51 cities in the Middle East, more than 233 files and libraries (BÁEZ, 2006). It should be remembered that archives and libraries only assume more specific contours in the Modern Age, before it can be said that the collections formed a common desideratum, so there is no institutional separation between them as it is known today (SILVA; RIBEIRO, 1999).

Anyway, these libraries predecessor of the library of Alexandria were known by the thousands of clay tablets, support that precedes the papyrus. Among the best known are the Assurbanipal Library or Nineveh Library, the Ebla Library and the Nippur Library. The tablets used to materialize what was said, the speech, through the word, of cuneiform writing, made it an "immortal witness" (FISCHER, 2006). For Jean (2008) "sales notes cannot be registered orally, for that reason so prosaic was born writing." Thus, these registers were mainly aimed at "supervising and validating accounts and contracts, as well as stimulating the memory of those who remembered the extensive oral history" (FISCHER, 2006, p.13). In short, "over 75% of the 150,000 cuneiform inscriptions excavated to date in Mesopotamia are accounting and administrative records, and the oldest are essentially lists of products, people, payments, etc." (FISCHER, 2006, p.23).

The format and size of the tablets themselves required that inscriptions of short texts, objective and precise information, linked to the labor issues, be they administrative or economic of the cities, and not long and continuous texts such as those recorded in papyrus, hieroglyphs and of the Library of Alexandria. The expansion of city-state domains, of their economic and administrative transactions, is also directly linked to the growing need for the written word, which requires more durable ways of documenting such activities. This coding of signs, from cuneiform writing, was performed only by a select group of people, for "very few people had reason to learn to read: only those who wished to check, check a label or identify a property seal" (FISCHER, 2006, p.13). The reading of the texts themselves was conditioned by the physical form of the material, which was limited to an immediate purpose and not to leisure.

The scribes, in addition to writing, learned from six to eighteen years, twenty-four days in a period of thirty, ranging from morning to evening, also read to their illiterate superiors or lords. Thus it can be said that much of the social knowledge was spread by oral reading, a reading that should be read so that others could hear the text, therefore "a Sumerian scribe undoubtedly had a great sense of responsibility for to possess this capacity of extreme value,

knowing that their interpretation of a written text would terminate a discussion of accounts or an article of a law "(FISCHER, 2006, p.19).

Among those libraries of Mesopotamia once mentioned are the Library of Nineveh, which was founded between the 7th and 8th centuries BC, by the Assyrian king Assurbanipal II, in the city of the same name as the Library. According to Baez (2006: 38), "his reign was difficult, but he, the first king to obtain instruction necessary to write tablets," was probably the first ruler to combine the sword with writing and reading. This library, considered the oldest in the history of libraries, discovered by archaeological excavations at the end of the nineteenth century, consisted of innumerable tablets, about twenty-five thousand, arranged in a manner organized on the shelves, and contained the description of the author and contents on the labels, which were attached to the holder or in the protective packaging. For Pereira and Santos (2014, p.16) this brief description of the works can be seen as "embryo of the catalogs". In addition to being considered the first library, the first literary work, the "epic of Gilgamesh" which "foreshadows the great legends of Greek mythology, particularly" The Works of Hercules ", also contains an extraordinary evocation of the Flood , prefiguring that of the Bible "(JEAN, 2008, p.20).

Fischer (2006, p.26) reports that this "library contained a high, unusual percentage of ceremonial writings, as well as astrology, omen and words of witchcraft - that is, resources to understand, appease, and coerce gods." This collection of boiled clay tablets and cuneiform writing is the beginning of the first manifestations of activities within a library, such as cataloging, storage and retrieval. The library of the Ebla Palace in Syria housed about seventeen thousand tablets that addressed a diversity of subjects: history, literature, agriculture, languages, but most of all, finance and economics, or rather, only a small percentage did not administrative matters (FISCHER, 2006). This amount of clay tablets came close to the Nippur Library, which contained about fifteen thousand tablets stored in the Sumerian city of the same name.

For Pettinato (1994) the first principle of Library Science derives from these first activities of thematic organization of the tablets, therefore, for this author it can be said that Library Science did not begin with the Library of Alexandria or the Library of Pérgamo (located in the city of the same name, and which sought to rival the Library of Alexandria), which are more quoted and known, but with the clay tablets of the Library of Ebla. These boards, according to Martins (2002), were the main support of the ancient libraries of Mesopotamia, also known as "mineral libraries", due to the material of the supports, both clay, clay and stones, which were succeeded by " vegetable libraries "of papyri, and the" animal libraries "of parchments.

In Greece, libraries were less numerous compared to other countries. For Martins (2002), this fact stems from the strong oral culture, theaters and temples of discussion, to the detriment of writing. It was common for public reading and reading circles, in the daytime, to

take advantage of sunlight, "usually in the open atrium or courtyard. Few, however, had such free time available during the day "(FISCHER, 2006, p. 67). According to Martins (2002) in Rome the libraries were divided between private and public, the first composed mainly of books looted from wars and materials produced by scribes or scribes. Private libraries were linked to the more affluent, like Cicero, considered one of the greatest philosophers of antiquity. Among the private libraries, with about 1,800 scrolls and with numerous Greek works, stands the library of the father-in-law of Julius Caesar, Lúcio Calpurnio Pisone. Scholarly men such as Theophrastus and Euripides also had private libraries in their homes.

Already the model of public library idealized by Julius Caesar and concretized by his supporters Asioio Polio and Publio Terêncio Varrão came to light in 39 BC in the Roman Forum. The public library of Rome consisted of two rooms, one of books in Latin and one of books in Greek, both decorated with statues of poets and speakers of both languages. After this library, other libraries were created by the emperors, with the Palatine Library by Augusto, and the Ulpiana Library, by Trajano, constituting the two most important libraries among the twenty-eight public libraries of Rome (MARTINS, 2002).

Throughout this period the figure of the "librarian" was related to the image of the literate and wise man who carried out activities related to the functioning and organization of libraries. According to Chaui (2010) the first librarian of the Library of Alexandria was Zenódoto, responsible for editing the works of Homer, who divided the Iliad and the Odyssey into twenty-four volumes. His successor Calypso of Cyrene organized and prepared the tables of the authors who had the function of serving as a bibliographical guide to guide the research of the museum guests (JACOB, 2000). This activity gave rise to the first catalog of the works of the library of Alexandria, named pinakes, composed of one hundred and twenty volumes, which reported the authors in alphabetical order, accompanied by a short biography, bibliography and commentary on criteria for the distinction between works authentic and apocryphal. Pereira and Santos (2014) also report that the volumes contained in the syllabus, that is, in the labels, information about the number of lines of each work, their initial words and the data about authors, which can be considered as antecedents of the identification.

On the organization of the collection of the Library of Alexandria it is known that it came to be divided by Calimachus of Cyrene into eight thematic sections: drama, oratory, lyric poetry, legislation, medicine, history, philosophy, and "diverse" (FISCHER, 2006). Although Apulonio de Rodas, Eratosthene of Cyrene, Aristophanes of Byzantium, Apollonius (1890), and Apollonius of Rhodes (1890), Apollonius of Rhodes, Aristophanes of Byzantium, Apollonius of Alexandria, Eidograph and Aristarchus of Samothrace, names that formed the first generation of notables in the direction of the library of Alexandria. According to Baez (2006, p.65) were men who assumed the direction of the library by design of the king. The director "lived in the palace of the king and received all kind of economic incentives to avoid possible bribery or betrayal. He paid no tax. He exercised, without power of exemption, the tutelage of the king's son".

Finally, Fischer (2006) points out that in the last centuries before Christ, papyrus scrolls have become increasingly scarce, and with it the parchment is gaining more prestige, and by the fourth century AD, there was already replacing almost completely. The parchment stands out due to its materiality, more durable and resistant, and also to provide a greater saving of space in the libraries, in view of the constitution of the codices with their notebooks (bound pages). In addition, it could be read with one hand, it was possible to consult parts of the works, without having to unroll the support, as was the papyrus. The parchment made room for another type of reading, a silent and introspective reading, focused on the personal search, in the mold of Christianity, which ensured the triumph of the parchment codex throughout the medieval period (MARTINS, 2002; FISCHER, 2006).

3 THE LIBRARIES IN THE MIDDLE AGES

Libraries composed of countless scrolls expanded during the 5th to 5th centuries AD, a period known as the Middle Ages. This support, made of animal skin, was more resistant than the previous ones (tablets and papyrus), which allowed writing on both sides and sewing on the back of the pages, giving shape to the codex, immediate precursor of the book. Although the materiality of media has improved in this medieval period, libraries have remained closed in on themselves, since only a small portion of the population had access to them, reducing them to "repositories," a place where more is hidden from what is revealed, as well as a place of silence. At first, the libraries were mainly linked to a sacred space, such as monasteries and convents, and secondly to places of study, such as universities, and in both cases the few readers at the time for silence in the libraries.

According to Fischer (2006) western Europe began the transition from an oral society to a literate society in the early Middle Ages, beginning with the higher strata such as the aristocracy and the clergy. In this way, individual reading came to have the same value and legitimacy as orality, even though readings were still aloud, a collective experience within the monasteries, churches, convents, universities and residences. This reading involved the deciphering of Latin, the language "vehicle of Christendom and all education" (FISCHER, 2006, p. 137), whose scope was international and had an official character. So much so that "only those who know how to read in Latin were *literattus*: a person capable of having access to written knowledge as well as sharing it" (FISCHER, 2006, p 137). Towards the end of the Middle Ages, with the increase of literacy, the mediation of the Catholic Church and religious became less and less, the literates themselves could establish this communication with the divine through the letter of the book, which in time it no longer had this miraculous effect on the medieval population, since it was no longer only the priest's reading that had access to the words of God (FISCHER, 2006).

This figure of the library as an enclosed space, of deposit, also made possible indirectly, since it was not the intention, the preservation of records and Greco-Roman culture, later valued with the Renaissance (cultural, artistic and intellectual movement),

which meant a profound rupture with this moment, later inaugurating the Modern Age. However, prior to this break with the previous model, Martins (2002) points out that the architecture of the libraries in antiquity and the Middle Ages revealed this closed conception of them, as in the case of the doors that generally gave the interior of where they were located. This author also states that the spirit of storage and preservation prevailed, so that "medieval libraries are in fact mere extensions of the old libraries, both in composition, organization, nature and functioning," the changes undergone are insignificant, resulting only from small social divergences (Martins, 2002, p. 71). Thus, it is added that "the soft sandals of the medieval monk repeated in the echo of the vaults the same ancestral sound of the Sumerian priests of the library of Assurbanipal" (MARTINS, 2002, p. 71).

Regarding this disposition of the libraries, Belo (2002) also says that the books were stored in lockers or *armarium* locked or even attached to chains. The books were, above all, precious objects, "the value of a book was, for a man of knowledge, both symbolic and material," so they were kept inside the cupboards and vaults (Verger 1999, p. 117). As Verger (1999) discusses, books during this early period of the Middle Ages were very expensive due to the support, the parchment that was used in large quantities for the making of the book. The cost of copying also derived from the value of the good copyists who were more expensive and lived in the cities (capitals of the nobility and university cities). In a second moment of growth of cities and universities, books have come to be seen as a necessity linked to teachings not only religious, but scientific. Thus, it is necessary to make books cheaper, which are smaller formats, the simpler and cursive writing, tighter on the page and written with pen of bird, multiplication of abbreviations, rubrics, indices and diminution of illuminations and miniatures (VERGER, 1999; REIMÃO, 2004).

On the libraries of antiquity and the libraries of the Middle Ages, Fischer (2006, p. 183) shows that the medieval libraries were smaller in quantity of items in their collections than the previous libraries; "Europe's earliest royal and monastic libraries never owned more than a few hundred books in stock, making cataloging unnecessary." Thus, some libraries had precarious records concerning bookshelves or even lists with the first words of the texts, when the titles were not official, rare cases of authors listed in alphabetical order. Catalogs constituted, therefore, when they were made a kind of bibliographical list, a descriptive inventory, which reflected in a little elaborated technique (PEREIRA; SANTOS, 2014). Regarding the cataloging by subject, which was quite unusual, this use has been reported in the eleventh century, in the cathedral of Le Puy in Haute-Louire, France. On Bookkeeping, Fischer (2006, p.183) further states that "books were generally organized on the shelves according to use, and their position was only memorized by a more experienced attendant, whom all time to find a desired text ".

Martins (2002) presents three species of libraries during this period of the Middle Ages: monastic libraries, university libraries and private libraries. On the content of the books, from the monastic libraries, Alonso (2006) addresses three nuclei: the most numerous

fund that constituted the liturgical books; in the second background were books of spiritual content for *lectio divina* (hagiography and works of the priests of the church); and, finally, the third group, which was composed of the miscellanies, the *libri artium*, works of pagan, Latin authors, as well as grammars for learning Latin. In private libraries, however, books followed the tastes and needs of their owners, while in institutional or university libraries the contents of books were based on disciplines, collections were a reflection of curriculum, teaching, and were ordered according to subject of the *triuvium* (Grammar, Rhetoric and Logic) and *quadrivium* (Arithmetic, Geometry, Astronomy and Music). Within this group, books were usually organized by size: in-folio at the bottom of the shelf, the quarto formats in the middle and the in-eighth in the top. The reason for this storage was pragmatic, in the sense that the books that weighed the most were below, the books with medium weights in the middle, and the lighter books on top (ALONSO, 2006).

Not unlike the previous libraries, of antiquity, the libraries of the medieval period are marked by the presence of the copyists - men destined to copy texts. These copies were made in the scriptorium, located in the monasteries and convents of the religious orders of the Franciscans, Dominicans and Benedictines, and later in the very space of the libraries in the universities. In the workshops commanded by the superiors, the monks copied, above all, the sacred works, but the Benedictines copied both these texts and profane texts produced in the previous historical period (MARTINS, 2002). It should be noted that monks in this period are associated with libraries, so that each monastery had a library, monks being represented in the books, whether due to copy or reading activities, which served to counter idleness, enemy of the soul. In the High Middle Ages, the importance of the Cassiodoro Library (sixth century), the Library of St. Benedict (Seventh Century) and the time of Alcuin (10th century) were discussed. They were concerned with the production of books, copies of works, as well as the preservation and storage of the books of the previous epoch and of his time (BATTLES, 2003).

As for the activity of illustration of the works, this exercise took on a larger space in the workshops than in antiquity, and the categories of illuminations and miniatures were created in the Middle Ages. Besides the prayers and the readings, the manual work of the copyist monks was represented by the entire process of making the work, from the preparation of the parchment, the copy of the books, the making of the illuminations, from the colophon to the binding. According to Martins (2002) the copies of the books assumed a sort of spiritual rite, capable of enhancing the virtues and enhancing the merits of these men. The Bible was the main work copied throughout the Middle Ages, as were innumerable "books of hours," religious texts that contained prayers for every hour day, in which they were generally illustrated and ornamented with precious stones, marking the bindings of jewelery.

Martins (2002) points out that among the most celebrated convent libraries of the Middle Ages are the Italian, French, Swiss and Prussian libraries, as well as the Montes Atos,

in Turkey, and the Vatican Library, related to Pope Hilary, established in Basilica of St. John Lateran. In the 9th century, the capitular libraries, linked to the church, began to appear, and among them the most famous are those of: Cathedrals of Chartes, Lyon, Reims, Cambrai, Rouen, Clermont (MARTINS, 2002). Not far from the notion of the library as a privileged space, there existed in this period several private libraries, mainly of kings and emperors, such as Charlemagne, holder of a library with numerous illustrated books, and Charles V of France, who came to gather one thousand and two hundred volumes, a considerable number in its time, that would constitute the collection of the National Library of Paris.

Such libraries after this obscure moment came to be considered "official", that is, under state control, open to the public with flexible schedules and more democratic collections. This change took place as a result of the improvement of the press, which changed the history of libraries, initially marked by a few wealthy men, powerful and eager to gather and produce knowledge of the world, as in antiquity and the Middle Ages. In these two moments, the old and the transition, the book was seen as an object available only to the privileged, not part of the everyday life of the rest of the population. Moreover, it is known that the illiteracy of the popular classes during the Middle Ages was total, and circulation and use of books, reading and the library are therefore null. Therefore, books were not intended for this class, books were not part of everyday life (MARTINS, 2002).

However, even in the Middle Ages there is a turning point in the history of libraries, due to the birth of university libraries, which are linked to the creation of medieval universities from the 12th century. In this way, the books began to be seen and felt as working tools, an object of support to the activity of teaching students and teachers, which also allowed the beginning of the process of secularization of the books through copies of other books that did not the religious made by lay copyists (MARTINS, 2002). Books progressively distance themselves from the religious universe, a sacred object, and approach the universe of study, object of research, demanding an improvement of the catalogs so that the books could be located, a clear displacement of the way of thinking about the book (SILVEIRA, 2014).

During the period of the Middle Ages, the books took on two meanings, one of the book as a sacred object (predominant in the High Middle Ages) and the other as the book as a working tool (in the Late Middle Ages), and students from the universities of Bologna , Sorbonne, Oxford, Cambride and Toulosse, request copies of some works for a fee. Although the figure of the book had modified or expanded its functions, the libraries of the medieval universities were still closed spaces, open only to the authorized, and composed of books tied to the shelves in order to maintain order, control of what was read , as well as hinder the loss of books. Nevertheless, the "librarian" continued to be associated with the figure of the book, immersed in a custody relationship of the collection, of that man who "counted the books, went to fetch them, and then returned them to the shelves" (BATTES, 2003, p. 123).

Although this moment of history is seen from a certain obscurantism, it is because of the flight of the Byzantine monks and sages to the West, by the taking of Constantinople in 1453, that the Renaissance finds the possibility of flowering with the manuscripts and the knowledge accumulated during the Middle Ages. Martins (2002, p. 96) points out that "the Renaissance would not have been possible, as far as written works were concerned, if the Middle Ages had not possessed these enormous silos which were their monastic, university and private libraries." This lay movement, which breaks with the previous system of knowledge cloistered in religious orders, placing the disposition of knowledge and valuing the knowledge produced, above all, by the ancients. Later, in 1462, with the taking of Mogotá, by the troops of Nassau, the press vulgarizes itself, due to the dispersion of the typographers by Europe (MARTINS, 2002), which contributes still more to the alteration of the relation of the book, of the library and the librarian in front of society.

4 PRE-SCIENTIFIC LIBRARY SCIENCE

The word Library Science according to its etymology can be decomposed into three elements: *Biblion* = book, *Theke* = warehouse and *Nomo* = administration or description, thus resulting in the conception of Library Science as organization and administration of libraries (library + economy). Another term similar to this is the one of Bibliotecología, which consists of the union of Biblio = book, Theke = warehouse and Logos = study, being, therefore, wider than the previous one due to the suffix logos, that means science, that is, the science of libraries. These terms, of Latin and Greek origin, will be worked as scientific concepts centuries after Antiquity, at which point the first empirical knowledge of the area prevailed. Thus, the practice of Library Science or Bibliotecology was already practiced in the spaces of the first libraries, hence the historical effort to return the most tender libraries and precursory productions of the field.

Another point to be made is that although the libraries at that early time were not guided by theoretical knowledge of a specific field, Library Science, there were, on the other hand, some efforts in this area. In antiquity, the first catalog produced by Calimachus of Cyrene, laid the foundations for the organization of knowledge records, using as descriptors the titles of works, the authors, including a brief biography and division by subject. Galen of Pergamum wrote *De libris propilis liber and Ordine librorium liber*, which may be considered the predecessors of the bibliographic repertoires. In Book VI of the work *De Architectura*, Chapter IV, addressed guidelines on the construction of spaces, among them the library and the Roman gallery. The Celsus Library, built in honor of Tiberius Julius Celso Polemeno in 135 AD, followed this Roman manual on the architecture of space, in which the only room in the building was to the east, due to the incidence of the morning sun rays, because their uses require the light of day.

Also in antiquity was written by Marco Terencio Varrón the book *De bibliothecis III* whose theme was the organization of libraries. According to Valcárcel (2004) it was Varro's purchase of the books and the classification into two rooms, one Greek and one Latin, based

on the linguistic-geographical criterion of the Public Library of Rome. The Roman emperor Tiberius created the administrative office, called *procurator bibliothecarum*, linking the library to this professional (PULIDO, MORRILAS, 2010). In addition to this professionalization of the librarian, Valcárcel (2004) points out that there was also the position *bibliothecarius* or *magister the bibliotheca* destined to activities such as preserving the collection, making copies, ordering the rolls in their cabinets or shelves, making the *titulus* and perhaps reporting a catalog or list of published works.

During the Middle Ages, there was an effort to systematize the operation of libraries, considered a space for the conservation of works, centered on organization, with the catalogs as an inventory. Pereira and Santos (2014) cite the catalog of the Benedictine monastery of Saint-Requier in France, which was composed of 246 volumes, as well as the catalog of the monastery of Bobbio in Italy, in which it registered 700 volumes and the monastery of Lorsch, in Germany, with 600 volumes. Productions considered specific and essential to the making of Library Science. Magno Aurelio Cassiodoro, founder of the Vivarium monastery in 550 AD, wrote the works *Institutiones divinarum et secularum litterarum*, which is a treatise on the rules of operation of a library and a scriptorium, as well as the selection of works that a monastic library dedicated to the study should possess in its collection. A clear concern with what is today called "Training and development of the collections".

Isidoro de Sevilla author of the work *Etimologías* (published around 630) composed of the chapters *De libris et officiis ecclesiaticis*, *De medicina et bibliothecis* and *De librariis et eorum instrumentis* brings in the first two chapters the development of collections for ecclesiastics and doctors and in the third chapter the instruments of work such as the elaboration of codices, knowledge of the document and the work of the monk. By extension, 448 chapters in 20 volumes, this work can be considered as one of the earliest encyclopedias of the Middle Ages. At that time, in order to gather the available knowledge, one cites the efforts of Bartholomeus Anglicus, who wrote *De Rerum proprietatibus* (1240) and Vincent de Beauvais, with *Speculum Majus* (1260).

Also in 1260, the treatise on Library Science was written by Domenicano Humberto de Romanis, author of the work *Instructio officialium*, composed by the chapter called *Librarius* (VALENZUELA, 1998; PULIDO; MORRILAS, 2004). Richard de Fournival, author of the book *Bibliography*, written in the thirteenth century, consists of a set of rules for the organization of collections (PULIDO; MORRILAS, 2004). Nevertheless, the first record of a catalog among libraries dates back to the Middle Ages, specifically 1250-1296 with the work *Registrum librorum angliae*, which gathered information on the collection of 183 English Franciscan monasteries (SERRAI, 1975). In the same vein, it was written during the late Middle Ages, Informatorium bibliothecarii, by Georgius Carpentarius, and published in 1888, by Ludwig Sieber.

At that time, Richard de Bury established the first libraries of European universities in his book *Philobiblon* or "friend of the book", rules of access to the Oxford library, for example: the loan was conditional on a kind of promissory higher than the value of the book, being only those selected who could make the loan, by noting the title and the date of the loan, not being able to leave the city or its suburbs with the book. As for books with lost duplicates, they could not leave the library room (BURY, 2007). Moreover, the book of Bury emphasizes the love of books, which are seen as masters of the masters, infinite treasure of men and wealth greater than all riches, including "the library of wisdom is more precious than all riches, and all the desirable things cannot be compared to it "(BURY, 2007, p. 34). Thus, this work is based on a regulation of a library, part on the "bibliophilia", written in 1345, "this is what may be considered the first publication - since the Sumerians wrote cuneiformes on ancestral clay tablets - to approach exclusively the passion for books" (ROLLEMBERG, 2004, p.9).

5 FINAL CONSIDERATIONS

It is possible to see that the figure of the librarian is closely related to the space of the libraries between the tablets, the rolls of papyrus and the codices of parchment. The librarian of both moments portrayed, Antiquity and Middle Ages, was a position destined to men of learned wisdom, men selected for activities of organization of the collections, description and creation of instruments of recovery and control. The slogans that illustrate these moments are: possession, custody, control, storage, vigilance and preservation of the collections. Libraries and librarians thus represented a kind of social distinction, beginning with the physical space (destined for the privileged few) and collections associated with the culture of the written and erudite word, passing through the privileged man to know how to read and write. This image of the library as a space of distinction, demonstration of a political, economic, cultural and intellectual sovereignty of a group of people, will remain in the antiquity of kings and scholars, and in the Middle Ages, through religious orders and university students.

As for the productions of knowledge, these have gradually increased over the centuries, in the Middle Ages the productions around the library and its activities were more substantial when compared to the productions of antiquity in terms of library knowledge. Even if Library Science is still seen as art or occupation, during these two moments, such actions were of great importance for the formation of knowledge and its subsequent consolidation as a scientific field. It can be seen, then, that in this first moment called pre-scientific Library Science or traditional Library Science, the productions turned to do it, for the daily and their internal needs: how to select and describe the collections, how to organize and manage the libraries. In short, Library Science begins its trajectory as a result of the practices still practiced in the first libraries, which are imbued with the conservationist spirit, at least until the fifteenth century, which is called pre-scientific Library Science (PULIDO; MORRILAS, 2010).

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