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Order of Knowledge, Selection and Bibliographical Tension in the 16th Century
Between Gesnerian Universality and Possevinian Anti-Heretism

Abstract:
Our work is guided by the construction of the genealogy of knowledge organization (KO). The plan of our discussion is that which is linked to the constitutive elements of modern bibliographical principles. In the history of cultural circulation, after the invention of the printed book, at least two interpretative models of the function of the culture and the representation of knowledge in society can be observed. On the one hand, the lay principle is developed according to which man finds his dignity in the rational search. The antagonistic side, on the other hand, develops the dogmatic view of those who consider themselves to be representatives of unshakable certainties that, from the point of view of a superior good, impede the freedom of choice of individuals. Among the first great representatives of these two models, we can see how Conrad Gesner, in his secular-minded compilation, incorporates a first proposal, while Antonio Possevino, on the other hand, proposes a bibliography rigidly configured to support the Catholic Counterreformation spirit (Serrai and Sabba 2005). From a historical-bibliographic approach intertwined with the ongoing debates in KO, the objective of this study is to promote a brief comparative formulation between the gesnerian Bibliotheca and the possevinian Bibliotheca, from the selection and the bibliographical tension under the aegis of universality and anti-heretism that delineate the order of knowledge in the 16th century. The study indicates that a proposal of theological and moral control in the access to knowledge, made through bibliographical control, finds in Possevino one of its greatest representatives (Santoro and Orlandi 2006). In this context, knowledge is evaluated through the rejection filter of authors who do not adhere to Catholic dogmas, which is why the Index Librorum Prohibitorum is instituted, condemning authors such as Giordano Bruno, Copernicus, Galileo and own Gesner. On the other side of the reflection on knowledge and information between the 16th and 17th centuries is the view of authors whose roots lie in the more properly humanistic culture. Genealogically, in bibliographical terms, it is Gesner and his work that heads this view, which tends to be delineated as lay knowledge. In comparative terms, as stated by Serrai (1993), while Conrad Gesner builds a Bibliotheca, which was Universalis, with Science, Nature and Theology as its main roads, Antonio Possevino draws his own Bibliotheca, which was Selecta, as a map of knowledge protected, guaranteed, without danger, by orthodoxy and morals. In Gesner there is absolute certainty in science and in Possevino reappearance a recurring anthropological skepticism and suspicion about the value and innocence of science. Indeed, the selection and the bibliographical tension between the two Bibliothecae, under the aegis of universality and anti-heretism, become the key not only to understanding but also to the delineation of the order of knowledge in the 16th century. In the long-term perspective, they are horizons that reveal the historical relations between knowledge, its control, its access and its organization.

1.0 Introduction
Our work is guided by the construction of a genealogy of knowledge organization (KO), an archeology in which in each stratum, each epoch is revealed.

If a complex bibliographical repertoire in medieval libraries does not seem to be relevant, because relatively few manuscript materials are available, one has to go to Trefler and, especially, Gesner, to find a substantial difference in bibliographical principles, which can be accomplished through a genealogical study of bibliographical treatises, a study that allows hermeneutic potentialities, provided that the criterion for evaluating the relationship between what should be faced and the way to deal with it is followed,
that is: the relationship between problems in search of solution and solutions offered, making it necessary to accept the phenomenological polymorphism of library reality in its history, because any linearity and imposed coherence turns out to be false.

In order not to slip into conceptual misconceptions, it is necessary that the requirements of scientific explanation be limited to the observation of relationships and nothing else, relying on that single theoretical core represented by the individualization and functionalities of index and catalog relations that constitute critical matter and interpretative conditions of the Bibliography.

Bibliography represents information, making it necessary to recognize the existence of logics and mediation procedures via indexes and catalogs. In this sense, the plan of our discussion is that which is linked to the constitutive elements of modern bibliographical principles.

After the printed production of information in books, Bibliography acquires an essential role in order to be able to reformulate the library structure itself. In fact, the modern library reformulates itself because there is a change in the structures of knowledge and, therefore, in the logic of information organization, mainly through bibliographical and catalog production. The bibliographical structure, destined to become physical structure in libraries, is based, in our view, on a new settlement of the “parties” involved in the discussion about knowledge.

We talk of “parties” because the univocal voice of the medieval Christian world is already fragmented from the perspective of Renaissance humanism. The Renaissance period brought, as a result, the formation of Protestant churches in the religious field, as well as the empirical-experimental foundation of the first claims of modern science.

The result of all this is the strong reaction of the Catholic Church, which is reformulated at the Council of Trent (ended in 1563), from which the characteristics of the actors of a new dialectic of knowledge emerges. As Balsamo (2017) writes, there is, in fact, a genealogy on the basis of statements about organization and access to information, which are based on the same principles we ask ourselves about today: for what and for whom does one select, order and allow access to knowledge?

In the history of cultural circulation, after the invention of the printed book, at least two interpretative models of the function of culture in society can be observed. On the one hand, the lay principle is developed according to which man finds his dignity in the responsible and rational search for truth, in the attentive and inexhaustible search for an understanding of the reality around us and of which we are constitutive elements. On the opposite, the antagonistic side develops the dogmatic view of those who consider themselves to be representatives of unwavering certainties that, from the perspective of a superior good, impede individuals' freedom of choice, as orthodox interpretation is guaranteed by official institutions, whose other task is to control its dissemination.

Among the first great representatives of these two models, we can see how Conrad Gesner, in his “universal” compilation of secular spirit (Bibliotheca Universalis), embodies the first model while, on the opposite side, Antonio Possevino proposes a bibliography (Bibliotheca Selecta) rigidly configured to support the Catholic Counterreformation spirit (Serrai and Sabba 2005).

From a contemporary perspective, we can build an imaginative exercise and situate the aforementioned contrast as a kind of precursor to the tension between “universal”
and “domain-oriented” KOSs, which have been objects of relevant discussions in the last decade, notably between Hjørland and Szostak.

For Hjørland (2017), for example, the KOSs would be based on social relations established by specific domains, which is in line with the historical experiences that support our study.

Naturally, in the context of this work, we are positioned in the 16th-century time-space in which informational, philosophical, social and cultural particularities must be rigorously considered and relativized when observing how knowledge was produced in specific “domains” and specific “discursive communities”.

From the historical-bibliographic approach intertwined with the ongoing debates in KO, the objective of this study is to promote a brief comparative formulation between the gesnerian Bibliotheca and the possevinian Bibliotheca, from the selection and the bibliographical tension under the aegis of universality and anti-heretism that delineate the order of knowledge in the 16th century.

2.0 Conrad Gesner and Bibliotheca Universalis

Conrad Gesner (1516-1565), as is already known, was a Swiss scholar, scientist and bibliographer. His education took place in many different cities like Zurich, Bourges, Paris, Montpelier, Basel and Strasbourg.

Gesner had Ulrich Zwingli (1484-1531) as spiritual guide, intellectual reference, tutor and economic support. Zwingli had brought together and harmonized the principles of Christian Theology, with the exercise of human reason and the intellectual heritage of classical pagan civilization. In this perspective, in the center of Zwingli’s thought was God conceived as truth and supreme good, who had distributed to all the possibility of accessing truth and salvation from the moment of creation and not, as was believed in both Catholic and Protestant, thanks to the subsequent incarnation (Sabba 2012).

The "Zwinglian theological vision" was adopted by Gesner, a particular current of the Protestant Reformation - distinct from Lutheranism and Calvinism - which had been marked and guided precisely by head of the Zurich Church (Sabba 2012).

A quintessential Renaissance “polymath”, Gesner had the ability to articulate and discuss numerous areas of knowledge, publishing books on multiple topics such as linguistics, medicine, theology, botany, zoology, paleontology, mineralogy and bibliography.

Bay (1916, 54-55) summarizes Gesner's relationship with his time and knowledge: “Gesner belonged to a period in the history of science distinguished for magnificent schoparship and elaborate method. His period of development and maturity was the ripening period of the Reformation. It was no rare occurrence that a man made himself master of the essentials of all knowledge thus far accumulated. […] Gesner had that peculiar ingenium which marshals both wisdom and knowledge”.

Conrad Gesner's intellectual maturity and methodological rigor is consolidated in his work Bibliotheca Universalis. A seminal work in the field of Bibliography, Bibliotheca consists of an alphabetical-nominal part called Bibliotheca Universalis (1545) (Figure 1) and Pandectae (1548, 1549), which is systematically ordered on the semantic content of the works.

Bibliotheca Universalis (1545) is an alphabetical-nominal catalog that lists 5031 authors from around 15,000 works in Latin, Greek and Hebrew. It is organized in alpha-
betical order by the author's first name and presents a summary and extract of the documents listed. It is a record that represents, above all, the literary heritage of Western culture.

Figure 1- Bibliotheca Universalis, 1545. Source: Gesner (1545). https://www.e-rara.ch/zuz/content/pageview/5079514

Bibliotheca's authorial scope includes erudite and non-erudite authors. Therefore, for Gesner, everyone should be remembered; therein lies a relevant aspect of his project, which is the possibility of giving voice to unknown authors, which makes Bibliotheca a device of wide dissemination.

It is interesting to note Gesner’s refusal to discriminate, upon finding his humanist stance, leaving the reader to evaluate and even judge the sources. As Gesner says: "I wanted to report so much, but I left the selection and judgment of the books to others" (Gesner 1545, 3v).

Gesner’s deliberate choice to treat all authors as worthy of memory points to a criterion adopted by Gesner: a supposed documentary impartiality.

According to Serrai (1990, 82):
“With this criterion of absolute documentary impartiality, Gesner planted another pillar that supports the techniques and ethics of bibliographic disciplines: the registration, organization and preservation of documentary memories cannot be subordinated to any ideological preference”. 

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For Gesner, the bibliographical operation should not be subject to restrictions or censorship, but, considering that Bibliotheca could also be used by inexperienced people, Gesner gives advice, guidance and warnings in relation to poor quality works.

From the point of view of the organization of knowledge, it is worth remembering that Gesner proposes, in the second part of the Bibliotheca, called the Pandectae (1548), a classification system that expands the seven liberal arts of Medieval tradition to the categories of complementary subjects of interest to the Renaissance scholars, constituted by 21 classes or partitions.


In his point of view of nature and his choices related to the taxonomy, Gesner reveals a scheme that seeks to contemplate the totality of orders: natural and artificial; of things and of sciences.

3.0 Antonio Possevino and Bibliotheca Selecta

Antonio Possevino was born in Mantua, a small city in the north of Italy, in 1533. Mantua was, at that time, an important court, governed by the Gonzaga family. Possevino went to Rome in 1550 to study and, in 1554, became Cardinal Ercole Gonzaga’s secretary, working, at the same time, as teacher for the future cardinals Francesco and Scipione Gonzaga. In 1559 Possevino entered the Society of Jesus, a turning point in his life. From then on, he became a dedicated preacher against heresy and spent many efforts to try to solve theological and political matters with northern and eastern European countries. He travelled to France, Sweden, Poland, Russia, Hungary, Romania and Moravia, looking for reconciliation where there were schisms proposed. He died in Ferrara in 1611 (Serrai 1993).

The textual structure of Possevino’s Bibliotheca (Figure 2) is based on the treatise modality, accompanied (as we said) by tables and authors. Books are divided into Holy Scriptures, Positive Theology, Scholastic Theology, Catechetical Theology, Practical Theology, Clergy, Heresy, Philosophy, Law, Medicine, Mathematic, Music, Architecture, Cosmography, Geography, History, Poetry, Oratory and Miscellaneous (Serrai 1977).

The title of the work Bibliotheca selecta qua agitur de ratione studiorum in historia, in disciplinis, in salute omnium procuranda explains the relationship with the Ratio Studiorum, a pedagogical system established by the Jesuits for their educational centers, which will be published in 1599. Faced with the universality and impartiality of the information offered by Gesner’s Bibliotheca, a list of authors sorted alphabetically and by topic in the Pandectae, Possevino’s objective is to propagate Christian doctrine to remove heresies and annihilate the schism. To this end, the curriculum proposal aims to provide for an each individual, based on their conditions and social status, the indications of the authors and the appropriate readings, by the children of the princess, oriented
towards civilians, ecclesiastics, diplomacy, passing through the nobility, even the lowest classes.

Alongside the indications for the *dispositio* and the good conservation of the volumes and the catalogs of the works and the nomenclatures of authors, the *Bibliotheca* offered indications for the *emendatio* and the *expurgatio* of those works that would otherwise have been prohibited, in addition to committing to refuting works and authors already listed. So Possevino, in the "model library", felt the need to return to opposition to certain publications, positioning his *Bibliotheca* not only as a mirror but also as a complement to the *Index Librorum Prohibitorum* (Balsamo 2017).

On the basis of Possevino's work, the Italian monastic libraries were purged at the end of the sixteenth century while, with regard to Rome, the libraries of the great cardinals were recipients of Possevino's censorship program (Serrai 1993). It is also true that in the *Bibliotheca Selecta* the primary interlocutors were princes and nobles who possessed rich libraries. All the rest of the work turned to the Jesuitic Order and the same *Bibliotheca* was initially conceived by Possevino as a bibliographical and at the same time pedagogical work to be destined primarily for the principles, considered on the one hand as the users of the Jesuit institution and, on the one hand other as the defenders of
Christianity. In the libraries of princes, therefore, not only printed books but also manu-
script codes had to be subjected to rigorous censorship.

A prescriptive bibliographical canon, such as the *Bibliotheca*, necessarily has a closed
and imposed character, based on the Counterreformation Catholic doctrine. It is articu-
lated following a hierarchical scheme that begins with the Divine History, then Positive
Theology. The Scholastica Theology follows: that is, the interpretation of the sacred
writings according to the teaching of the Church. Next comes the Theology practice as
a spiritual direction of consciences, and Catechetic Theology, oriented to pedagogical
activity, with the establishment of a whole curriculum for the school. Eleven of the
eighteen books are dedicated to all this part. The autonomy of human science is ques-
tioned, because all sciences are included in Divine History.

The *Bibliotheca* classification scheme is radically opposed to Gesner's *Pandectae*,
which began with the *Trivium* and *Quadrivium*, to end with Theology in the twenty-first
book. The *Bibliotheca* represented a guide to safe, guaranteed knowledge, without dan-
ger for Catholic orthodoxy. The work is organized in two volumes. The first, dedicated
to Pope Clement VIII, is divided into eleven books: the first five lay the foundations of
Christian education on the Scriptures and on Theology, while books VI-XI provide the
cultural tools for evangelization of the world by reformed Christians to the inhabitantsof
the Indies, in view of a Catholic "conquest" or "reconquest". The second volume, dedicated
to Sigismund III, King of Poland and Grand Duke of Lithuania, consists of
six books (XII-XVIII) in which the different disciplines (law, philosophy, medicine,
mathematics, architecture, geography, history, poetry, painting and rhetoric) are pre-
sented in descending hierarchical order and dependent on Theology, in controversy with
their alleged autonomy.

Possevino’s *Bibliotheca* can be used to draw a balance of early modern Catholic cul-
ture. Quotes and oversights, genuinely known texts and second-hand quoted texts, cor-
rections and errors, convictions and censures, autobiographical references and (not al-
ways explicit) positions on current problems are a fertile ground that still awaits
investigation.

It’s interesting to notice that his suggestions for organizing a physical library differ
from the bibliographical scheme, as Serrai indicates (1977, 79).

4.0 Order of knowledge, selection and bibliographical tension between *Bibliotheca
Universalis* and *Bibliotheca Selecta*

On the other side of the reflection on knowledge and information between the 16th
and 17th centuries is the view of authors whose roots lie in the more properly humanistic
culture. Genealogically, in bibliographical terms, it is Gesner and his work that heads
this view, which tends to be delineated as “lay” knowledge. The idea of "universality"
present in the Gesnerian work does not point to a generic totality, but to the possibility
of access and appropriation of books and manuscripts by the learned community. If, at
the time, this community is made up of scholars, at no time are there obstacles to its
expansion.

The ideological question involved, though, should be linked not to the simplistic op-
oposition of religion versus science, or past versus future. The two models of interpreting
the world are far more complex than this. As Serrai (1993, 717) points out, while Ges-
ner’s bibliography was *Universalis*, Possevino’s is *Selecta*, which means that the
sources of the first are broad and that the sources of the second are strictly chosen. While Gesner looks for the widest compilation of works covering all the fields of knowledge (a compilation limited only by the three chosen languages), Possevino creates a bibliography aimed at education, study, reference inside the domain of orthodox theology. Gesner, as Balsamo states, considers bibliography “an essential tool for achieving knowledge and ‘communicating’ it to others”, being “an invitation to share in further research” (2017, 30). The core of Possevino’s Bibliotheca consists of “mapping” all the knowledge fields through texts, tables and the list of authors that wrote about each specific field, including those not acceptable by the reformed catholic doctrine, being not recommended. Gesner builds a catalogue meant to be not only the state of the art of knowledge, but also an effort to offer traces of all the previous culture. Possevino, on the other side, serves the Church purpose to reestablish its primacy as knowledge “broker”, interpreter of the right doctrine that ascend to the Divine. This way, the main purpose of Bibliotheca Selecta was to be “prescriptive bibliographic canon which would serve as a tool for imposing ideologically correct works on all who engaged in studies or research” (Balsamo 2017, 46-47).

This opposition, stated by the very title of Possevino, should be smoothed by the relevance of Gesner as a source for his bibliography, although Gesner is cited by the author both in private letters (see Serrai 1993, 113) and in the Bibliotheca Selecta (also cited by Serrai, 1993, 717 and 720, referring the first to the Preface to Bibliotheca Selecta and the last one to the Apparatus Sacer).

One should consider that after he entered the Jesuit order, in 1559, Possevino had to contend with the relevance of the Bibliotheca Universalis throughout the European intellectual circles, even though included already in the first edition of The Index Librorum Prohibitorum, in 1564.

The Catholic Church needed a modern structure for sustaining its authority, undermined by such a complete catalog as the Bibliotheca Universalis, whose contents trespassed the boundaries established by the Counterreformation. Gesner’s Bibliotheca had become so relevant that the Church had to choose whether to accept it or to lose the competition to sustain its knowledge authority.

Possevino, in his Bibliotheca, forged a strategic tool based on the impossibility of universality: this would imply the acceptance of Protestant authors, while his interest focused only within the domain of Catholic knowledge.

In order to better explain this dialectic, we offer an example taken from the disciplinary position of Catholicism in relation to artistic production. Clearly, the post-conciliar Church establishes rules for the realization of religious images, for which the didactic function stands out. That art conceived in this way had a brief life, is evident in its rapid evolution to the emotional appeal of Baroque representations that, even so, maintain their theological rigor, expressed by an effective rhetoric. We have already talked about Possevino's role in the elaboration of Counterreformation bibliographical catalogs, and it is worth mentioning that he dedicated himself to the bibliography related to art, in his Tractatio de Poesia et ethnica, humano et fabulosa collata cum vera, honesta et sacra, from 1595 (Possevino, 1971). Just like his Bibliotheca Selecta, Poesia et Pintura offers the rigidly delimited model of the Counterreformation doctrine, a model that becomes an instrument of close control applied to bibliographic information and the circulation
of books, aimed at the construction, “on the documentary level, of a collective memory selected according to a specific pedagogical program” (Balsamo 2017, 55).

What we want to highlight here is that Possevino, a religious scholar and bibliographer, selects a set of authors and books not dedicated to techniques, but rather to morality in painting and sculpture. Possevino, is not an artist, so he expresses moral concerns on art, selecting those authors that “deal with this issue from a theoretical point of view, and not a practical one, as other art bibliographers were doing at the time, in order to structure the meaning of the object of art. This way, he offers titles that move away from the technical domain” (Crippa 2018, 76).

Returning to the scheme of the actors of the dialectic of knowledge of the time, one can observe, on one side, the proposal of a theological and moral control in the access to knowledge, which is accomplished through bibliographic control, which finds in Possevino one of its greatest representatives (Santoro and Orlandi 2006).

On the other side a libertarian, bourgeois matrix thinking develops, proposing a “universal”, secular access to knowledge. If we rely on this dialectic between the two models, it is appropriate here to offer a proposal for the individualization of their characteristics, focusing on the library as a public service that provides all the tools for study and information. We thus identify the current of thought linked to the post-conciliar vision, in which the control by the ecclesiastical institution of knowledge through its rigidly controlled administration and dissemination is placed as its basic principle. Perhaps, it should be remembered, once again, the role played by the new religious order of the Society of Jesus, an order specifically created to support the decisions of the Counterreformation. In any case, knowledge is thought the filter of rejection of authors who do not adhere to Catholic dogmas, which is why the *Index Librorum Prohibitorum* is instituted, condemning authors such as Giordano Bruno, Copernicus, Galileo and, not surprisingly, Gesner.

5.0 Considerations

In comparative terms, as stated by Serrai (1993), while Conrad Gesner builds a *Bibliotheca*, which was *Universalis*, with Science, Nature and Theology as its main roads, Antonio Possevino draws his own *Bibliotheca*, which was *Selecta*, as a map of knowledge protected, guaranteed, without danger, by orthodoxy and morals.

In Gesner there is absolute certainty in science and in Possevino reappearance a recurring anthropological skepticism and suspicion about the value and innocence of science.

Gesner turns to scholars and elaborates for them the indices of the cultural heritage of all humanity, creating a mediating instrument for documents and monuments, without sectarianism and bias. Possevino, on the other hand, works in reverse, under the threat of Protestant advancement, and cannot be faithful to the principle of universality: he prepares a guide for those who, as Catholics, must be safeguarded, tutored and protected (Serrai and Sabba 2005).

Gesner and Possevino became emblems of two cultural worlds and gave favorable conditions to the development of science and civilization.

Gesner promoted a bibliographical selection based on criteria of intellectual, scientific and philological rigor and developed a rigorous method of bibliographical nature. But a substantial difference with Possevino lies above all in the greater
conceptual breadth of Zwingli's ideological system, in which the Gesnerian culture was implanted, compared to that of the narrow doctrinal armor that marked the ideology of the Catholic Counterreformation (Serrai and Sabba 2005).

In Modern Europe, Gesner and Possevino promoted bibliographical ruptures, of a Protestant and Catholic nature, respectively, that affected significantly the forms of production, organization and mediation of knowledge.

Indeed, the selection and the bibliographical tension between the two Bibliothecae, under the aegis of universality and anti-heritism, become the keys not only to understanding but also to the delineation of the order of knowledge in the 16th century. In the long-term perspective, they are horizons that reveal the historical relations between knowledge, its control, its access and its organization.

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