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workshop paper

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CENTER FELLOW)**

***BOOKS AND THINGS:
THE CRISIS OF
REPRESENTATION IN GERMAN
LIBRARIES AFTER 1800***

MONDAY , MARCH 8, 1999

**4 p.m. to 5:30 p.m., Seminar Room,
Center for the Humanities, 2010 Sheridan Rd.**

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Books and Things

The Crisis of Representation in German Libraries after 1800

Jeffrey Garrett

For all its pregnancy as an image in Western thought and literature, the library, as a real existing site of memory, order, and meaning creation, is commonly overlooked in the framework of cultural-historical studies. This omission is unfortunate, since, as Roger Chartier writes, "no 'order of discourse' is separable from the 'order of books' with which it is contemporaneous," [1, p. 23] and indeed, the library spatializes some of our most important cultural discourses, in particular those of general grammar and natural history [2]. But the reverse of Chartier's dictum is true, too: the order of books cannot be understood without reference to the order of discourse of which it is both a part and an expression. This broader consciousness could guide the work of library historians, but it rarely does. Perhaps the astonishing fecundity of the library as a topos in modern literature [3], from Musil to Pérez-Reverte, is an attempt to create an alternative venue for a discussion that cultural historians and library historians alike have been reluctant to undertake.

My goal in this paper is to take a few initial steps toward rectifying this deficit by describing the very different "system of positivities" [2, p. xxii] European and especially German libraries embodied through the end of the 18th century, and then examining against this background the beginnings of a new order of thought as manifested in a single exemplary German library: the *Hofbibliothek*, or court library, in Munich in the early 1800s. This microstudy will show the painful disengagement of the library from the "space of representation," where it had made itself increasingly comfortable during the preceding two centuries. The consequences of this departure were notable, and included, as I hope to show, the discovery of intertextuality—Eco's *sussurri dei libri*—and the isolation of manipulable bibliographic information, both foundational parts of the libraries we still inhabit today.

* * *

In his *Museographia* of 1717, Kaspar Friedrich Jenckel offers up this remarkable phantasmagoria of a contemporary German library—it happens to be the city library of Hamburg: On one side of the library hall (writes Jenckel) stood large wooden cabinets with glass doors through which visitors could see, in roughly the following order, rows of human and animal skeletons, taxidermically prepared fish, snakes preserved in spirits, snails, various marine organisms, rock specimens, the head of a walrus and of a peacock, samples of fragrant woods, urns, funerary lamps, a specimen of human skin (tanned), surgical, mathematical, and physical instruments, a metal burning mirror, and two globes. On the other side of the hall stood the repositories for books. On the columns that supported a level of galleries, portraits of scholars were hung. A long table with chairs was set up in the middle of the hall for the comfort of the public [4, p. 52].

Other libraries in Germany of the age were not much different. In the city library of Nürnberg, books and manuscripts were displayed next to the drinking cup and black satin cap of Martin Luther, while in close proximity to these were: a preserved shark, a watchmaker's elaborate toy wagon, and a collection of medals [5, p. 64]. In the library of Count Windhaag near Perg in Upper Austria, cases and drawers for instruments, skeletons, and other artifacts were placed near the books they went with [6, p. 41]. In his *Advis pour dresser une bibliothèque* (1627), Gabriel Naudé urged his readers to avoid ostentatious display and extravagant bindings, and instead to concentrate on “the fairest and best editions” of books and on the other accoutrements appropriate to a library:

. . . in lieu of such gildings and adornings, one may supply [the library] in Mathematical Globes, Mapps, Spheres, Pictures, Animals, Stones, and other curiosities as well Artificial as Natural, which are ordinarily collected from time to time, with very little expence [7, p. 141].

One of our first reactions upon reading these accounts (and accounts are almost all we have, since very few early modern libraries have survived into our age intact without having been “cleaned up”) is to be struck how books and things are merged within a single space referred to as a library—a place we have always thought to be mainly for books. Supporting the notion that this conflation was not only physical but mental is the fact that the words *Museum* and *Library* were used largely interchangeably throughout the 18th century. Both terms

described rooms for interaction with stored objects, and book-objects arranged in libraries were treated no differently than any other placeholder within the general taxonomy on display: they just happened to be bound collections of signs rather than creatures or other objects of nature. This equivalence worked in both directions. Artifacts were grouped as if they were "so many books," individual chapters in what Charles Bonnet called "the immense Library of the Universe or true Universal Encyclopedia" [2, p. 85]. The Museum, the Library, the Encyclopedia were all reflections of natural order, all "books furnished with structures . . . in which classifications are physically displayed" [2, p. 137].

The conflation of book and object was realized to a singular extreme in a creation unique to this era, the so-called *Xylotheke* or *Holzbibliothek* ("wood library"), of which several dozen still exist in Europe. Some of these wood libraries are tucked away in remote German castles near towns with impossible names, such as [Burg Guttenberg](http://www.burg-guttenberg.neckar.com/rundgang/seite44a.htm)¹ near Haßmersheim-Neckarmühlbach, or in monasteries, such as [Kremsmünster](http://linz.orf.at/gast/adv/monat_9712.htm)² near Linz in Upper Austria. The largest wood library is the *xyloteca* of the Museum of Natural History in Milan, which owns 550 of these bizarre book-like objects, each assembled from the wood of a different tree, with a spine covering made of that tree's bark, sometimes still with the moss hanging from it that the tree would have known, and indeed did know, in life. Inside the book-container are specimens of the tree's fruit, leaf, root, and other characteristic parts. The spine was marked with the name of the tree, both in the vernacular (e.g. *Rottanne*, *pino*) and with the Linnean classification in Latin (e.g. *picea abies*). Call numbers were not necessary, for the classification identified unequivocally where the book—and the tree—stood in the order of books and the order of things. The relation of libraries and museums to nature is brought into clear relief by wood libraries. It was "one of analogy rather than of signification; or rather, their value as signs and their duplicating function are superimposed" [2, p. 37].

But the plenitude of things in the Hamburg library is not the only aspect that strikes us as unusual or even humorous about it. The military arrangement of such disparate artifacts

¹ Photograph at <http://www.burg-guttenberg.neckar.com/rundgang/seite44a.htm>

² Kremsmünster has an extensive site on wood libraries: http://linz.orf.at/gast/adv/monat_9712.htm

might cause us to reflect for a moment on the way libraries and museums produce such strange bedfellows. Some of these bizarre pairings result from inclusions in a particular class—the head of a walrus and the head of a peacock are, after all, both heads—while others result from unintentional adjacencies of members of distinct classes, as with the unlikely neighborhood of the detached peacock's head with various aromatic woods.

With arrangements of books, the often jarring incongruities of classification and adjacency are demurely hidden from view behind relatively uniform book covers, but in 18th century libraries, these juxtapositions, this "sudden vicinity of things that have no relation to each other" [2, xvi], were made manifest and visible—though for the contemporaries they were probably not "jarring." Libraries then (and, to a lesser extent, today as well) represent spatialized classifications that linked by fiat, by the power of linguistic assertion, different entities based upon supposed defining characteristics, while separating others. Observers (like ourselves) who would have singled out different defining characteristics for these same entities may find that members of entirely different logical orders have been forced into inappropriate combinations, ones that Foucault calls "heteroclite." When exploited in art and in literature, heteroclite combinations create *heterotopias*: the disturbing coordinations of Lewis Carroll's Wonderland, for example, or of Jorge Luis Borges's planet Tlön, with "its transparent tigers and towers of blood" [8, p. 8]. Borges, our most profound library philosopher, was director of the national library of Argentina between 1955 and 1973 and no stranger to classifications that confound and to adjacencies that bleed. He delighted in the discovery or synthesis of heteroclite taxonomies [3, p. 80-113]. His most famous—and the original inspiration for Foucault's *The Order of Things*—Borges attributes to "a certain Chinese encyclopedia" entitled *The Celestial Emporium of Benevolent Knowledge*, in which

. . . animals are divided into: (a) belonging to the Emperor, (b) embalmed, (c) tame, (d) sucking pigs, (e) sirens, (f) fabulous, (g) stray dogs, (h) included in the present classification, (i) frenzied, (j) innumerable, (k) drawn with a very fine camelhair brush, (l) *et cetera*, (m) having just broken the water pitcher, (n) that from a long way off look like flies [9, p. 103].

It is safe to assume that in the China of Borges's essay as in the Hamburg or Nürnberg of the 17th and 18th centuries, the involuntary humor of the incongruities that we today perceive

was lost on contemporaries, since for them they were not incongruous, but "benevolent knowledge" that created order. So secondly we observe that there is a willfulness that goes into any ordering of objects, either abstractly in catalogs and classifications or in their spatial projections as museums and libraries, and that it takes an outsider to see this.

Yet a third question arises as we consider the description of the Hamburg library: How was it "used"? Were the chairs and tables that were in the middle of the room, between the books on one side and the things on the other, intended for readers and researchers, or indeed mainly for the "comfort" of visitors? The second question we cannot answer, at least not directly, but the first, based as it is on the presumption of utility, of usefulness, already miscomprehends the role of the library of the ancien regime. In the 18th century, the "age of the catalog" [2, p. 131], the "heroic age of classification" [10, p. 15], in which both books and museal objects related to the world in the same way and were both subordinated to the overarching goal of representation, the museal function of the library to represent and reproduce the order of the natural world *was* its function. At the root of this mission was "not the desire for knowledge, but a new way of connecting things both to the eye and to discourse" [2, p. 131]. The enlightenment that took place in the library came from exposure to and immersion in the system of the sciences and the order of nature, and only secondarily the education that resulted from interaction with the content of individual works. Libraries had in common with natural history cabinets and botanical gardens that they imposed an order on language that paralleled the order being introduced between living creatures. The visitor to libraries was invited to marvel at the order (re)created, to observe and to comprehend. As is well known, monastic libraries especially "functioned as opulent storerooms for the display of books and were shown to outside visitors as a matter of course" [6, p. 7]. But also famous institutions such as the Bodleian Library in Oxford were at mid-18th century far from being the research institutions they would later become. During the entire year of 1742, for example, only 257 books were ordered by readers [11, p. 70ff]. Several decades earlier, the German Zacharias Konrad von Uffenbach visited the Bodleian, and observed that the library was mainly intended to be beheld, in the tradition of the *Raritätenkammer*: "Peasants and women alike gape at this library like cows regard a new barn door" [12, p. 4]. The library, then, as *Schautafel*.

It could be argued that 18th century libraries offered different aspects to different user communities: spectacle to the public, while at the same time carefully arranged scholarship for academics. But this would misperceive what scholars of the age expected. They placed entirely different demands on libraries than we would today. For example, the philosopher Friedrich Heinrich Jacobi (of whom more later) expected from his library, through its lists and systematic arrangement, that it "instruct him in how to locate works he is not yet familiar with, and allow a rapid and easy overview of the holdings so that he can compare them and remove unnecessary works" [13, p. 412]. Johannes C. Friedrich wrote as late as 1835 that the mission (*Aufgabe*) of the library is to "reproduce exactly the course and the structure of science" [14, p. 249]. And the Munich Germanist and librarian Docen, writing in 1810 on the purpose of the systematic catalog—often the only catalog of a library, one that replicated exactly the order of books on library shelves—asserted that its purpose was "not necessarily the rapid location of unknown works on known topics, but instead the representation (*Darstellung*) of a well-ordered inventory for every subject area of the library" [15, p. 503]. Rapid location of known items, reference ("intrusive") consultation of monographs and journal articles, citation chasing, etc., all user behaviors that we associate with the "useful" modern research library, were not supported by 18th century libraries. Nor were they demanded.

It comes as no surprise, then, to hear from Bernhard Fabian that the Enlightenment, in Germany and elsewhere, though doubtless a movement that was based on the printed word, was in no way mediated by the traditional library, but instead went right past it: the ferment of the 18th century and the great debates that dominated intellectual discourse took place in ephemeral literature—in reduced forms, such as essays, tracts, journal articles, pamphlets and leaflets (*Flugschriften* and *Flugblätter*). These were published frequently (in major cities such as Berlin often twice daily) and distributed broadly, and were much coveted reading matter in the cafés and coffee houses as well as the popular subscription libraries of Europe, the *Leihbibliotheken* and *cabinets de lecture*: "ephemeral literary forms in ephemeral libraries," as Fabian puts it. Yet these same genres were beneath the dignity of "real" libraries to collect, for as we have seen, they had loftier aims [12, p. 6, 9].

After pressing what we could out of Jenckel's description of the city library of Hamburg in the early 1700s, let us now look at a second image, this time not of a real library, not even of a fictional library, but of an architectural ideal, namely the bibliographic utopia of Etienne-Louis Boullée's project for the Bibliothèque du Roi of 1785 (see [Figure 1](#)) [16, plate VI]. What we see here is a vast barrel-vaulted basilica with endless-seeming galleries of books, all, however, clearly visible from the standpoint of the viewer, and all conveniently accessible to the toga-clad scholars who read, perambulate, and converse among themselves—but don't sit down for prolonged interaction with texts, for which this library was evidently not the place. Surely Boullée's design fulfills "the dream of Renaissance bibliographers of making the particular place in which the reader finds himself or herself coincide perfectly with universal knowledge" [16, p. 91]. It reflects on a grand scale the architectural principles of the "wall-system" for the library developed in the late 16th century in the Escorial of Philipp II and the Ambrosian Library of Milan [6, p. 37], that by the mid 1700s had become the standard for libraries of all types across Europe, even comparatively small monastic libraries such as that of [Neustift](#)³ (Novacella) in South Tyrol. Unlike Hamburg, in Boullée's library all non-book objects are banished from view, but this should not be taken to mean that the books are themselves any less object-like, for they are clearly on display, all of them, and (what is not evident from the picture) they are arranged in their "natural" subject order. The Bibliothèque du Roi is a museum as well as a library of the universe, with carefully ordered books depicting the universe in each and all of its parts. The taxonomy of nature and of the sciences provides the structure of the library. The overall impression is one of exceptional balance, order, and control, and the observer enjoys an all-encompassing view of this encyclopedic order. Indeed, visual beauty and "intellectual," scientific beauty are linked and intertwined in this single monumental structure [cf. 17, p. 5]. Of a real library, namely that of Duke August in Wolfenbüttel, which presented its entire contents to a single glance of the eyes, Hermann Conring wrote in 1661: "Truly it is greatly delightful, as it were, to learn in just one moment an almost infinite number of things, just as in fact often happens in other instances when much is suddenly given to be understood" [6, p. 49].

³ Click on the link to the library at <http://www.library.nwu.edu/collmgmt/humanities/budapest/Neustift.htm>

Part of this ideal is naturally also the expression of its dystopic opposite, as rendered in a final image we will consider, reproduced from the *Bildergalerie klösterlicher Misbräuche*⁴ ("Picture Gallery of Monastic Abuses," see [Figure 2](#)), a work by Joseph Richter (1784) [18]. In addition to the umbrella and sausages drying from a rail suspended between the bookcases, a rat climbing up the wall, the broken globe, a telescope facing backward, and the indolent monk sketching provocatively posed human figures at a table next to the window, we also see that the books of this library are disorderly and many are locked up behind crossed chains. Another less obvious but equally important dystopic feature is see that the books are shelved in such a way that we have no idea what part of the library we are seeing: the rows of books, standing at odd angles, disappear around corners and are lost to view. This feeling of disorientation is exactly the opposite of what an 18th century library was supposed to evoke in an observer. We today, before pronouncing the library "disorderly," would first consider the nature of the arrangement of the books and their degree of access via catalogs, but the organization of the 18th century library had to manifest itself to the observer directly and was judged by its degree of correspondence with the world and the sciences. Was there then no separate internal organization of the 18th century library?

Indeed, there was not. Foucault writes that "language in the Classical era does not exist," only vocabulary [2, p. 79], meaning that words were naturally understood as occurring in proximity to each other, but that the complex syntactical relationships between the elements of language were not perceived. There was no internal organization of language beyond its representative role, and this role was accomplished word by word in reference to that of which was being spoken. To the mind of contemporaries in early modern times, the order of books, like the language books were made up of, did not assemble itself into complex configurations proper to the library, and then relate complexly to the world, but instead related item for item, and then as a whole, as a library, to corresponding references in nature, and ultimately to the cosmos.

⁴ Image: <http://www.library.nwu.edu/collmgmt/humanities/budapest/richter.html>

For this reason, catalogs in the 18th century were secondary to shelf order, and indeed were compiled only after books were in place: the assignment of a book to a place on the shelf, to *its* place between two other books, defined its position in the catalog and the place of its content in the scheme of the sciences. Changes in shelf order required that the systematic catalog be corrected. There was therefore no science of library organization that transcended the classification of the sciences and, ultimately, of nature. Debates over the systematic catalog were therefore also immediately debates of *Wissenschaftseinteilung*: the division of the sciences, of which it was always assumed that there was but one valid "system" that the perspicacious library visitor would master. Inability to use a library therefore meant lack of familiarity with science. Bernard Docen, the traditionalist librarian we have already heard from, speaks of systematic catalogs as "the simplest and most natural" ordering of books. Anyone who cannot find their way through them must either be unfamiliar with their discipline or *es ist ihm aller Kopf abzusprechen* (he lacks intelligence). "The staff of such a public institution works for neither of these two classes" [15, col. 499f.].

It is not my purpose to criticize this view from a modernist perspective, or to say, with Heidegger, that it is language, and not the "outside world," that is the "house of being" [cf. 19, p. 393]. Even contemporaneous to Docen and within the dominant discourse of representation there were those who observed that books could relate to the sciences and to the world not in a one-to-one, but in a one-to-many or many-to-many correspondence, and therefore recognized that multireferential books could not be situated uniquely in a two-dimensional classificatory grid, much less along the single (one-dimensional) continuum that library shelves form. Finally, of course, even in pre-Kantian Europe, there was in point of fact no single valid "system," meaning that scholars and librarians, too, might be very much at home in one library, but fully lost in another: "As things stand now," Friedrich Adolf Ebert wrote in 1820, "every German library has its own system of order, sometimes good, sometimes bad, and no librarian can orient himself in the library of another" [20, p. 25].

The gap between the primary museal function of the library and the occasional need of library visitors to actually locate an individual book was bridged by none other than the librarian, which is to say: by his local memory (*memoria localis*) and his polyhistoric knowledge. The

marriage of place and item in his mind effectively indexed the library, but in a way that was hidden in the complexity of synaptic connections and never made explicit. As was said of the legendary De Praet, the librarian was the irreplaceable *vivant catalogue* of the library. In German, of course, there is a marvelous word that denotes this form of bibliographical knowledge, namely *Büchertitelgelehrsamkeit* ("book-title-erudition"), and its most famous exemplars have been the wonder, but also the laughingstock, of generations of writers, from Lessing [21] to Eco [22]. Goethe, for example, ponders long the example of his friend, the collector and polyhistor Christoph Wilhelm Büttner, "a living library, eagerly providing for every question exhaustive, prolix answers" [23, p. 109f.] but who left behind upon his death in 1801 a library without order, *eine litterarische Schweinigeley* (a bibliographic mess), as Goethe called it while preparing to remove it from Jena to Weimar [24, Letter to C. G. Voigt, p. 16-18]. The order—which in fact was none, instead only a cerebral equivalent of random access memory—was constituted solely in Büttner's head. Upon his death, all that remained was a random pile of books. The irony of such a memory is that it is usually assumed by the librarian to reflect a natural order, one belonging to the books and not to his mind [25].

The image of the memorious librarian with instant recall of all remembered pieces of information, regardless how or even whether that information is organized, and who can then relate it to corresponding reality segments, is the topic of Borges's story, "Funes the Memorious" [26]. Ireneo Funes was left paralyzed and initially unconscious by a riding accident, but ". . . when he came to, the present was almost intolerable in its richness and sharpness, as were his most distant and trivial memories. . . . Now his perception and his memory were infallible." "I alone have more memories than all mankind has probably had since the world has been the world," he tells the narrator. Like Büttner, Funes is a living library.

To have more efficient access to his vast trove of memory, Funes assigns ciphers (we might say: call numbers) to each of his memories—as Borges tells us, there were some 70,000 for each day of his life. These ciphers Funes assigns at random, with no coherent order, for he

could always instantly associate them with what they represented and actually preferred renaming the numbers so they had no consistency:

He told me that in 1886 he had invented an original system of numbering and that in a very few days he had gone beyond the twenty-four-thousand mark. He had not written it down, since anything he thought of once would never be lost to him. . . . In place of seven thousand thirteen, he would say (for example) *Máximo Pérez*; in place of seven thousand fourteen, *The Railroad* . . . In place of five hundred, he would say *nine*. Each word had a particular sign, a kind of mark. . . . I tried to explain to him that this rhapsody of incoherent terms was precisely the opposite of a system of numbers. I told him that saying 365 meant saying three hundreds, six tens, five ones, an analysis which is not found in the "numbers" *The Negro Timoteo* or *meat blanket*. Funes did not understand me or refused to understand me [26, p. 64].

Funes's memories are representations, each with an assigned name, a mark, a call number, each corresponding to individually identified segments of world, but they are not ordered in any way. Taken together they are a chaos, a "garbage heap," as Funes himself confesses, held together only by the power of his extraordinary memory. It is explained that Funes was incapable of creating relationships between his individual memories ("he was not very capable of thought"), only outward to the remote real world as he experienced it. This creates a "vertiginous world" (Borges) with no horizontal, organic relationships created between the memories to give them shape and form. Funes's mind is really the world of the 18th century library, that had no order but the distant one it mirrored.

In addition to a solid historical education acquired in Heidelberg and Göttingen, Munich court librarian Baron [Johann Christoph von Aretin](#) (1772–1824)⁵ possessed a capacious, and, in his own opinion, infallible memory. In 1810, he even published a book on memory, *Systematische Anleitung zur Theorie und Praxis der Mnemonik* ("Systematic Introduction to the Theory and Practice of Mnemonics"). Aretin was also a fanatical bibliophile—a bibliomaniac, as one biographer calls him—a lover of the rare and the beautiful book. But he

⁵ Portrait and biographical information: <http://www.library.nwu.edu/collmgmt/humanities/budapest/Aretin.htm>

was not a librarian, and indeed he had no idea how to organize a library, a deficit that he himself never perceived [27, p. 7 ff.]. After a sojourn in Paris in 1801 to study the disposition of confiscated libraries, Aretin became the *Bücherkommissär* in Bavaria and oversaw personally the confiscation of over 200 monastery libraries for the Bavarian state between 1802 and 1811 [28]. On his "literary business trip [29]" from abbey to abbey, his memory allowed him to recall manuscripts and incunabula that the monks had attempted to hide, but which Aretin knew must be there and demanded that the monks produce. All in all, Aretin oversaw the selection and transport to Munich of close to a quarter million books for the court library from the monasteries of the mendicant and prelate orders. Taken together with the incorporation, in 1803 and 1804, of the court library of the Mannheim branch of the Wittelsbach dynasty and its 100,000 volumes, the Munich library became, within the space of a very few years, in the opinion of the British Museum's Antonio Panizzi and others, second only to the Bibliothèque Nationale in Paris as the leading library in Europe [30, p. 94-96, 31, p. 159f.].

But was it a library at all? As Otto Hartig wrote in 1932, the secularization of the monastery libraries brought for Munich "both untold riches and an immeasurable chaos that put to shame all previous library experience" [32, p. 398]. The attempts at administration of this chaos are described in a remarkable handwritten history of the library in these years [33], the work of [Martin Schrettinger](#)⁶, an ex-Benedictine monk who came to the court library in 1802, and about whom more will be told later. Schrettinger recounts how the bookman Aretin applied himself to the task at hand, enlisting the services of "an entire horde of moonlighting servants, copyists, handwork apprentices, failed students, and other vagabonds" to record title information and assign a subject classification (!) on individual sheets of paper so the books could be integrated into the systematic standard that Aretin had identified, the Jena Literature Repertorium. The result was, in Schrettinger's words, an "artificial chaos" that exacerbated the natural one, so that "only a fortunate coincidence permitted a requested book to be found, even after a search of several days." The chaos lasted not for months, but for

⁶ See <http://www.library.nwu.edu/collmgmt/humanities/budapest/Schretti.htm> for portrait and other information.

years, so that in time "the public became so aware of the disorder that it was a topic of conversation at social gatherings and around beer tables, and people cursed the staff of the library." The memorious Aretin had failed to create order, to create a library out of this mass of books. The conclusion of his superiors, however, the directors of the Bavarian Academy of Sciences, the aforementioned Jacobi and his deputy Adolf Heinrich Friedrich von Schlichtegroll, was that the root of the problem was Aretin's failure to understand the traditional standard, not the standard itself. For them, true to the representational norm, the chaotic condition of the catalog was "the faithful mirror reflecting the internal state (*innere Gestalt*) of the library" [27, p. 23]. In fact, as became incontrovertibly clear when the second librarian failed—a competent and hardworking man, Julius Wilhelm Hamberger, an experienced librarian from Gotha, who arrived in Munich in March 1808 and was delivered to an insane asylum in Bayreuth within four years—it was the failure of the library as a site of representation and of the culture of representation as a whole.

Consistent with the wisdom of the 18th century, Hamberger had insisted on systematizing the collection before creating an alphabetical catalog, meaning that each book had to be assigned to a single topic within a universal systematic catalog (which corresponded exactly to shelf order). For a finely meshed system such as the one Hamberger brought with him from Gotha—it was the very detailed classification devised for the University of Göttingen, which possessed the most illustrious and modern library of the age—this meant that debates could last endlessly over where a particular book belonged. After all, any arbitrary decision, just to establish a place on a shelf where a book could be predictably located, was incompatible with the representative mission of the library, in which the taxonomic act of class assignment, i.e., of denomination, recreated the world at the same moment the library was organized. Finding the "right place" (the right name, the right classificatory niche) for the book was essential, since known books could not be found unless one knew or intuited where they must be systematically. Hamberger even had volumes that had been bound together torn apart to allow them to be systematically arranged. Many classes were overfull, while others went empty. The Göttinger system, in the words of Aretin's associate Joseph Scherer, was like the "blueprint for a city that planned so many streets for convenient transit that there was no room left for actual residences" [quoted in 34, p. 84]. In time, the unprecedented and

continuing crisis of the Munich *Hofbibliothek* made the realization unavoidable that the library was being made to serve the system, rather than the system the library. By the end of 1810, the staff of the library under Hamberger's direction had finished just 45,000 books. At that rate, 18 more years would have been necessary to finish the systematic catalog [34, p. 85], and only then, in keeping with traditional practice, did Hamberger intend to begin his alphabetical catalog—the catalog that would actually allow library users to find books based on their author or title.

It was then the enormous quantity of monastery books that led to the collapse of the system of representation in the German library. Not even Boullée's gigantic library basilica would have sufficed to hold and, above all, to *display* half a million books. The *Bücherflut* was an intrusion of history into the relatively static world of the 18th century library. But it also signaled the failure of the culture of display (the wall library was no longer practicable, and with it the all-encompassing single glance as the "measure" of the library and the universe) and of memory (no human mind, no *memoria localis*, could cope with a collection this size). As consoling as the rounded balance of the 18th century library was as a rendering of world, the dysfunctional library of the early 19th century mercilessly attacked the senses and the sanity of everyone exposed to it. "Utopias," as Foucault writes, "afford consolation . . . heterotopias [which result from the failure of classifications to *make sense*—jg] are disturbing . . . [they] desiccate speech, stop words in their tracks, contest the very possibility of grammar at its source; they dissolve our myths and sterilize the lyricism of our sentences" [2, p. 18]. Like Borges's librarian of Babel [35], Hamberger must have felt that he had been "condemned to a ceaseless mapping that is disjunctive to the realities of the world, and in this activity he loses himself both inside and outside the library walls . . ." [3, p. 111]. Hamberger's slide into madness was as much a result of epistemological despair as it was from a sense of personal failure.⁷

⁷ Hamberger's fate was not an isolated instance at the *Hofbibliothek*: Early on the morning of April 4, 1826, Joseph Scherer, by then the director of the court library, attempted to drown himself in Munich's Englischer Garten. He was rescued by a passerby. Five months later, the police had to be called to remove him from his office, and he was delivered, "completely insane" (Schrettinger), to the general hospital [36, p. 12-13].

As if the *Bücherflut* were not enough, demands were coming to be placed on libraries in these years that had been unknown in pre-revolutionary Europe. In Munich, beginning in 1799, calls became ever louder for a closer association between the Bavarian Academy of Sciences and the court library [37, p. 53 ff.]. In 1807, the new constitution of the Academy completely subordinated the library as its "attribute" [37, 59 f.]—with the blessings of the king, whose private library it had been for centuries, and especially of his enlightened chief minister, Montgelas, who was himself an historian, a skilled and thoroughly modern user of archives and libraries [38, p. 119]. The chaos of the court library, the failures of Aretin the bookman and Hamberger the *Systemdenker*, were now seen as especially galling.

By 1811–12, it had become clear to Montgelas and to the members of the Academy (as it was already to the diarist Schrettinger and to poor Hamberger himself) that the systematization Hamberger had begun with such energy was a failure, and that again, for the third time in a decade, a completely new approach to organizing the library would have to be found. It is likely that the pivotal event took place, however, not in the court library itself, but in the course of conversations that took place in early 1812 between Martin Schrettinger and Montgelas, after Schrettinger had taken Hamberger's place as cataloger of Montgelas's private library [34, p. 113-119]. That same summer, Montgelas's close associate Carl August von Ringel, responsible for the arts and sciences in the Bavarian interior ministry, sent a list of 25 questions to the staff of the library, the most important being Question #10:

In light of the volatility [*Veränderlichkeit*] of all scientific classifications, and of its consequence that systematic cataloging can never be perfect, is the imposition of a *System* of such importance that the complete ordering of the library should be delayed indefinitely? Is it instead not just a manifestation of scholarly extravagance, and would it not be a task for quiet times in an already organized and well-rounded collection of books, rather than for a library struggling to deal with enormous chaotic masses, pressed by debt and current expense? [quoted in 34, p. 118]

The author of this question, it has been speculated,⁸ could not have been Ringel or Montgelas, but instead must have been Schrettinger, who in the months and years after 1812

⁸ Rupert Hacker, personal communication.

was to receive at last his opportunity to organize the formless mass of books according to a system that he had developed while still a monk in Weißenhohe 15 years before, and that he had applied with success to a number of private libraries in Munich after leaving his monastery in 1802. Schrettinger summarized his method in an extraordinary [work](#)⁹, *Versuch eines vollständigen Lehrbuchs der Bibliothek-Wissenschaft oder Anleitung zur vollkommenen Geschäftsführung eines Bibliothekars in wissenschaftlicher Form abgefasst* ("Toward a Complete Textbook of Library Science; Or a Guide to the Librarian's Complete Administration, Written in Scientific Form"), published at his own expense in 1808 [39]¹⁰—the very week, incidentally, that Hamberger began his ill-fated tenure in Munich.

We need to step back for a moment and regard the biography of Martin Schrettinger. He was born in 1772 in the town of Neumarkt, near Nürnberg, and was schooled in nearby Amberg and more distant Burghausen. Shortly after his 21st birthday, he took his vows at the small nearby Benedictine abbey of Weißenhohe, assuming the *Klostername* of Willibald, and began within a matter of months to keep a diary he would continue until shortly before his death 57 years later, in 1851.¹¹ The journal reveals that almost from the beginning, there was friction between Schrettinger and the abbot over books and the young monk's desire to educate himself in philosophy and physics. Kant, Knigge, even Campe were confiscated and, by March 1798, the abbot demanded of Schrettinger *sub peccato gravi* that he give up the sciences entirely (*alle Wissenschaften fahren lassen*) and occupy himself henceforth only with ascetic writers. In an incident that would have delighted a Voltaire or a Lessing, Schrettinger records how the abbot took Kant's *Metaphysik der Sitten* with him to his chambers "to read this book and determine whether it does not contain anything

⁹ Title page of volume 1 (1829): <http://www.library.nwu.edu/collmgmt/humanities/budapest/schreboo.jpg>

¹⁰ Northwestern, incidentally, is one of a handful of libraries in the world to own a complete set of all four parts of Schrettinger's *Versuch*, acquired in 1871 with the 20,000-volume personal library of Johannes Schulze, a prominent minister in the Prussian civil service. I hope to tell the story of this acquisition, which has provoked far more comment in Germany than in the United States, some time in the future.

¹¹ Bound in three volumes, approximately 800 manuscript pages in length, and cataloged as *Schrettingeriana* 2 in the Manuscript Department of the Bavarian State Library in Munich.

objectionable," returning it just two days later, demanding that the prior return it immediately to the bookseller [40, entries of March 7 and 9, 1798].

Against this obscurantist background, it is easy to see how a philosophy such as Kant's, that allowed for a secular worldview with a Christian framework, would find an attentive reader in the young Pater Willibald. When in March 1800, despite the abbot's suspicions and Schrettinger's own "overpowering disgust" towards everything associated with "monkery," he was appointed the librarian of the monastery, Schrettinger acquired his own private laboratory in which to test the application of what he had learned to the organization of printed information. It seems that in his reorganization of the Weißenhohe library effected in the two years before leaving the monastery forever in August 1802 [41], Schrettinger took to heart Kant's insight that we have no apperceptive access to the divine order of the universe, that "thus the order and regularity in the appearances, which we entitle nature, we ourselves introduce" [42, p. 902 (A 124)].¹² Since there is no "primal text," no definitive statement, classification models are possible of the most diverse kind, depending upon the *System* of each individual observer.

If, as Schrettinger must have asked, the *purpose* of the library can no longer be the representation of a cosmic order—since names (and all classification) are the result of subjective, best-guess assignment, rather than the result of reading the world, and since the only true domain of science is the elucidation of functional order within complex, but not divinely informed, disciplines—*What then is the purpose of the library? And once determined, how can it best fulfill that purpose?* Schrettinger's *Versuch* is the attempt to answer these questions and to provide a scientific basis for the practice of librarianship, which Schrettinger calls *Bibliothek-Wissenschaft*, the science of library organization—a name that stuck and that we still use today.

¹² Or consider Borges's eloquent rendering of the same precept: "It is useless to answer that reality is also orderly. Perhaps it is, but in accordance with divine laws--I translate: inhuman laws--which we never quite grasp" [8, p. 17].

As his *Versuch* reveals, Schrettinger was also well acquainted with the literature of librarianship, including a book written by the librarian to the princes of Thurn und Taxis in nearby Regensburg, Albrecht Christoph Kayser (1756–1811). Kayser's book, *Ueber die Manipulation bey der Einrichtung einer Bibliothek und der Verfertigung der Bücherverzeichnisse . . .* ("On the Manipulation of Organizing a Library and the Preparation of Book Lists," 1790), is in many respects a pre-philosophical version of Schrettinger's later work. It is not known whether Schrettinger actually knew Kayser, but much of Kayser's thoughts and even some of his language, almost verbatim, are contained in Schrettinger's *Versuch*. Consider, for example, this statement of Kayser's:

The rapid finding [*schnelle Auffindung*] of books is the first and most important goal of a library. A general alphabetical catalog coupled with a shelflist is the most effective means thereto [43, p. 5].

In Schrettinger's *Versuch*, the goal of "rapid finding of books" (*schnelle[s] Auffinden der Bücher*) is embraced completely as the purpose of every library, as is Kayser's heretical preference for alphabetical and shelflist catalogs.¹³ But Schrettinger anchors this pragmatic determination of the purpose of the library in a new function-oriented definition of what a library is—*as a library*. Indeed, the opening lines of his book read:

A "library" is a large collection of books whose organization enables every knowledge seeker (*Wißbegierigen*) to use every treatise it contains without unnecessary delay according to his needs [39, p. 11].

Schrettinger then defines "library science" as the sum of all theorems (*Lehrsätze*) that can be developed to fulfill the purpose of the library as set forth in its definition.

It is evident that Schrettinger's definition of the library, based as it is upon *function* in service of *utility*, represents a radical departure from traditional definitions that identified libraries either as a place or as a collection, but both principally in the service of representation. For Schrettinger (as for Kayser before him), the library leaves the realm of the visible and

¹³ We meet this phrase again in a memorandum by Ringel to his ministry in July 1814 in which Ringel characterizes Hamberger's failure as not honoring the "principal goal of every library, [namely] to provide for the rapid finding of every book (*das schnelle auffinden eines jeden Buches*)" [quoted in 34, p. 121].

becomes one of the "great organic unities possessing their own internal systems of dependencies" [2, p. 145]. The object of library science then is to determine its "internal laws" in light of the purpose of the institution as defined.

Schrettinger then considers, one after the other, the time-honored practices of librarians in light of his definition. He banishes all non-book objects from the purview of library science as being extraneous to its purpose. He closely examines the practice of systematic arrangement of books on shelves and in catalogs in light of the service of this practice toward the goal of the library, determining that since all library users carry their own system in their head, it is possible that each one might look for books they need in different places. Using the example of the subject "dueling," Schrettinger shows how a book on the topic might be placed among books on morality, natural or positive law, politics, the judicial system, ethical philosophy, ethical theology, or elsewhere [39, p. 50-51]. Must a library acquire as many copies of this book as necessary to allow each library visitor to find it where he or she expects to? Why not just ask the librarian? Schrettinger rejects both notions out of hand, the first because of its obvious expense, the second for more fundamental reasons:

The librarian's local memory cannot be an inseparable part of a library's organization plan. For if that is the case, whenever one librarian is replaced by another, the collection of books loses its utility and, in that moment, ceases to be a library [39, p. 12-13].

Instead, Schrettinger (again echoing Kayser) insists that "all types of order required in a library can and must be created through catalogs," not through shelf order and not courtesy of the librarian's memory. Whereas earlier library theoreticians, Naudé, for example, or Michael Denis, skipped lightly over the need for cataloging rules—since the catalog merely mirrored the order of books on the shelves—for Schrettinger, the catalog became the cornerstone of the entire library enterprise. Books themselves were to be grouped on the shelves more or less by subject (for the benefit of browsers), but within these groups in any order the librarian wishes—for example, in order by receipt (*numerus currens*), so that the newest books would always be placed at the end. At one point, Schrettinger even advocates dividing the collection up into as many classes as there are rooms to fill. We see that the

order of books on the shelf has become a purely mechanical matter that has nothing to do with cosmos, nor does it require the investment of scholarly attention [44, p. 128].

The key to the smooth functioning of this system was that every item receive a clear bibliographic description and a unique number denoting its physical location in relation to other books, and that the two resulting catalogs, the *alphabetischer Katalog* and the *Nummern-Repertorium*, or shelflist, reference one another reciprocally. As Schrettinger writes:

One might say that shelflists are the topographical maps for individual regions of the library. They relate to the alphabetical and systematic catalogs in the same way that maps relate to geographical and topographical country descriptions. Their *first* purpose is to provide a convenient and reliable overview of the external mechanism of the library. Their *more remote* [purpose] is to secure the relation that has been created between the catalogs and the order of the books on the shelf [45, p. 1]

And so the once all-important systematic catalog slips in Schrettinger's library science from first to third place, behind the alphabetical catalog and the shelflist, which are the *sine qua non* for locating books, i.e., for the achievement of the principal goal of the library, *das schnelle Auffinden der Bücher*.

Against the background of the 18th century library presented in the first half of this paper and the demands we know were beginning to be placed on it, the radicality of Schrettinger's proposals becomes clear. In the place of the library as a portrait of universal order, Schrettinger has put a search-and-find machinery, beholden only to its own laws that in turn are dictated by the demands placed upon it by modern science. Schrettinger's truly revolutionary achievements, however, rest in the fundamental distinctions that (*pace* Kayser) would have been, literally, unthinkable just decades before. First, there is the distinction between visible order and true order—one might also say: between observation and truth [46, p. 7]: this marks the exit of the library from the arena of representation. Schrettinger's second distinction, a close corollary of the first, is the one he makes between bibliographic information and the physical book-object: henceforth they can be (and must be) manipulated separately from one another, provided they remain, to use a modern term, connected by

"links" (*Zitationen* [39, p. 50]) that in turn are based on a unique item number, the *Individualsignatur*. The third distinction Schrettinger makes is between the person of the librarian and the book-related content of his memory, which Schrettinger seeks to make explicit, thereby dethroning the librarian as the mediator between user and collection, and putting the catalog in his place.¹⁴ Fourthly and finally, to provide subject access for library users without forcing them into the straitjacket of a *System*, Schrettinger urged that the systematic catalog be replaced by a catalog of subject headings.

In the wake of the bibliographic disasters during the administrations of Aretin and then Hamberger, and with the silent patronage of Montgelas and the support of then acting library director Scherer, Schrettinger was finally given his chance in 1814. By summer 1817, half a million books had been put on shelves, arranged very generally by subject group, and given their unique numbers. Author-title information for each was entered according to cataloging rules that Schrettinger had carefully set down in the second part of his *Versuch* [39, Pt. 2, p. 28-49]: the identification of the *alphabetisches Ordnungswort* allowed for a predictable ordering of the sheets of paper with catalog information by what we would call today the "main entry" (German: *Hauptaufnahme*) [48]. By the end of 1818, the shelflist, too, was finished [49, p. 93-94]. Schrettinger worked on his [catalog of subject headings](#)¹⁵ until shortly before his death in 1851, recording his progress in his *Bibliotheks-Chronik* (e.g., "On Decbr. 1, I completed *Geographia universalis* and on Decbr. 2, I began to work on *Historia Extra-Europea*.") His last entry records his work on December 12, 1850—Schrettinger died four months later [50]. By then he had completed assigning subject headings to 84,000 volumes [34, p. 126], meaning that users could look up "dueling" and find cross-references to works scattered all over the library, in a host of disciplines. Like language itself, his catalog was infinitely expandable, but unlike Hamberger's systematization, which sought to capture the putatively "unique" character of every book in a universal grid of description, Schrettinger's

¹⁴ This unleashed the same debate in German library circles as similar efforts at "Taylorization" have within the library profession on both sides of the Atlantic in the decades since [Cf. especially 47, p. 64-66].

¹⁵ Click on "Alphabetischer Realkatalog" at <http://www.library.nwu.edu/collmgmt/humanities/budapest/Schretti.htm>

subject classification was compatible with almost anyone's "system:" it merely recorded intertextual relations—in Schrettinger's words the "intersecting lines of relatedness of the contents of books" (*das durchkreuzende Ineinandergreifen des Inhaltes der Bücher* [51, col. 108])—leaving it to individual users to integrate the information they find into their own larger epistemological structure. The process of subject heading assignment could also be conducted without hurry, since the fundamental purpose of the library had been achieved by allowing every identifiable book to be found without delay through the use of catalogs. With each new subject heading assignment, the web of recorded relationships between books—the *sussurri dei libri*—would just become denser and the library more useful.

My original interest in this topic did not stem from the failures of traditional library organization to deal with the flood of monastic books, but with the causes behind what was to become, ultimately, the solution, and why that solution was so "modern" that it retains its validity today. In *The Order of Things*, Foucault carefully avoids dealing with the "problem of causality." He writes:

. . . the traditional explanations—spirit of the time [*Zeitgeist*-jg], technological or social changes, influences of various kinds—struck me for the most part as being more magical than effective. In this work, then, I left the problem of causes to one side; I chose instead to confine myself to describing the transformations themselves, thinking that this would be an indispensable step if, one day, a theory of scientific change and epistemological causality was to be constructed [2, p. xiii].

It is nonetheless a valid question to ask, at the close of this look at the Munich court library in the years after 1803, what drove these changes. I believe the conclusion to be drawn is that Schrettinger's system, though it arose in quiet intercourse with Kant and Kayser during his Weißenhohe years, would never have seen the light of day had not the *Bücherflut* "put to shame all previous library experience" (Hartig). *Not macht erfinderisch*, as the German saying goes—emergencies foster invention: The failure of the culture of representation to cope with the new situation led to desperation—and to a greater receptivity toward new ideas such as Schrettinger's.

What is the modern relevance of this tale of books? The confiscation of monastic libraries plunged the Bavarian library infrastructure into a crisis not dissimilar to the one libraries face today, suggesting that Schrettinger's remarkable insights might be of relevance for our own contemporary situation. The "flood of books" of those years finds its modern equivalent in today's "information glut." For almost fifteen years, scholars had to navigate (literally) between mountains of monastery books stacked in provisional warehouses throughout Munich with no catalog to guide them. This disorienting situation presaged the "excess of information" that Theodore Roszak describes with such pathos in *The Cult of Information*, a situation that "may actually crowd out ideas, leaving the mind . . . distracted by sterile, disconnected facts, lost among shapeless heaps of data" [52, p. 88]. Roszak's criticism—and the image of information seekers adrift in a sea of information—seem all the more relevant since the advent of the World Wide Web.

From an epistemological standpoint, our situation today was largely prefigured then, 190 years ago in Munich, and the library that was created then lives with us still. Then in Bavaria as now almost everywhere, we confront a superabundance of texts and must create order out of this chaos, yet without constraining the freedom of individuals to see new relationships between hitherto unconnected facts, ideas, or whole areas of knowledge. Schrettinger advocated only the most general of classification schemes, emphasizing instead the need to create a multitude of simple but powerful interlinked indexes, providing researching scholars with important navigational tools without imposing on them a particular worldview. As Uwe Jochum points out in an important study [53, p. 32-33], Schrettinger's theoretical work anticipated both modern computer catalogs—indeed, only with their arrival could his search-and-find machinery be truly realized—and the transformation of librarians from presumptuous intermediaries into less visible, less intrusive, but ultimately more useful facilitators of memory, order, and meaning creation.

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