Indexes, lists, archives: foundations of the modern museum in information history and philosophy

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Abstract
Perhaps the most distinctive feature of the modern museum, as the latter emerges from the scholarship of the History of Collecting, is its ability to contain and generate knowledge in an ordered and systematic way [1-4]. Distinguishing pre-modern notions of the museum from what is understood to be a contemporary construct, scholars have argued, for example, against a notion of the museum as a treasure house, proposing instead a notion of the museum as an interconnected and disciplined environment of material things; a location closer to the idea of the archive [5-7]. Indeed, while museums keep objects, they do so, it is widely accepted today, as part of a whole, described as collection; what makes a sum of objects into a collection, in turn, is often described by recourse to the idea of a binding and shared set of organizing principles. In this paper we

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Selection and peer-review under responsibility of The 2nd International Conference on Integrated Information

Keywords: museums; archives; index; collection; Ashmolean museum, Oxford; Bodlean Library, Oxford.

1. Main text
Perhaps the most distinctive feature of the modern museum, as the latter emerges as a meaningful concept from the scholarship of the History of Collecting, is its ability to contain and generate knowledge in an ordered and systematic way [1-4]. Distinguishing pre-modern notions of the museum from what is understood to be a contemporary construct, scholars have argued, for example, against a notion of the museum as a treasure house, proposing instead a notion of the museum as an interconnected and disciplined environment of material things; a location closer to the idea of the archive [5-7]. Indeed, while museums keep objects, they do so, it is widely accepted today, as part of a whole, described as collection; what makes a sum of objects into a collection, in turn, is often described by recourse to the idea of a binding and shared set of organizing principles. In this paper we
would like to emphasize the foundation of the modern museum, and the very notion of the collection as it currently understood both as a historical object as well as a museological construct and tool, looking at the history of museums in comparison to the history of libraries. Drawing from the history of collecting, we would like to show that the construction of the modern museum in the early modern period comprises a phenomenon contingent on ideas and developments central to a broader history of knowledge and information. Organizing principles, and one’s ability to discern those against the material sum of things, as in the 16th century early encyclopedic endeavors often described as cabinets of curiosities in English speaking scholarship, were part of the museological and collecting agendas of the early modern museum or indeed collection of objects, linking thus the practice of collecting to the process of ordering and managing information content leading to the production of knowledge. The historical and philosophical connections between museums and archives are apparent, we would like to suggest, if one compares the practice of collecting and displaying in the early modern period to examples from the history of libraries prior to the 19th century. For the purposes of this paper we concentrate on examples from the History of collecting that comprise the cases of the Oxford Ashmolean Museum and the Bodleian Library, also in Oxford, UK.

Despite the close links between the early modern notion of the museum and the location and notion of the archive, following the 19th century institutions described as such are received as autonomous and separate entities often with different missions and objectives. Scholarship both from academics working in the field of museums, libraries and archives, but also from professionals involved in the same field has reinstated, in recent years, the need for convergence, the latter often cast as an administrative necessity and a plea for more efficient handling of information content, a plea tied to the notion of the users and institutions’ public roles. In this light, library and archive professionals have recently more systematically addressed the need for institutions such as libraries, archives but also museums for collaboration. Such initiatives and voices emphasize the necessity of developing and applying shared codes of conduct among all institutions for the sake of an efficient, ethical and sustainable management of information [8-10]. In this context, management refers both to the preservation of material as well as the provision of access to the material for public purposes. European policies developed by the European Commission concerned with the management and preservation of audiovisual heritage and cultural industries in particular have facilitated research and collaboration projects towards this direction, a recent example in the latter case comprises the EuropeanaLocal network, funded by the eContentplus program of the European Commission [11, 12]. Such an endeavor appears also to present professionals involved in all three fields with challenges as well. One quoted in the literature concerns the presence of distinct perceptions of access encountered against diverse curatorial cultures [13]. Such a perception is exemplified in library studies literature, as a notion of access that is seen to apply for museum professionals, yet is distinct to the one shared by librarians, for example. In this light, not primarily the acquisition and management of primary material, but interpretation, appears as one of museums’ key role in delivering access and making knowledge and material available to the public [13]. Yet while in museological studies, such an understanding of access is prominent in recent years and often discussed as one of museums’ key role, it is by no means the primary task that museums from their inception were seen to serve. Even though the provision of interpretation and the production of a hierarchy of ‘public’ meanings distributed against a varieties of ‘museum visitors’ has received much attention by museums recently, early museums’ ability to produce ‘public’ knowledge contained both a different notion of access as well as interpretation if compared to the current one encountered in visitor studies [14]. Furthermore, what initially was cast as a plea for democratization in museums, concerned with the role of communication and the tasks of education, in recent years, has also been critiqued as an often-populist strategy derived from pragmatic considerations [15]. Representations of knowledge that emulate the idea and style of mass spectacle that often reduce the presence and testimony of original objects and primary evidence into a series of oversimplified textual

† See for example the recent conference and scholarly peer reviewed international journal dedicated to collaborative research across fields. IC-ININFO is the acronym of the international conference, which since its inception and launch in 2011 in the Greek island of Kos was repeated for a consecutive year in Budapest, Hungary. The theme of the conference was integration and is credited to Georgios Giannakopoulos, Conference Chairman and Dean at the School of Management of TEI Athens.
narratives has been some of the objects intrinsic in such a critique. Original artifacts and the presence of artifacts in collections as primary evidence for research, as well as the materiality itself of the collection, are often seen as questions secondary to the role of the museum and its relation to the public, in this light. More recent curatorial strategies however have emphasized both the specificity of the museum and gallery space as well as the presence of the object itself and its sensorial qualities as locations for a museum experience, not reduced to the imperative of interpretation and the production of narratives that have accompanied the latter in the period following the 19th century in particular. As Nicholas Serota has argued, drawing from the history of Contemporary art and curatorial and museological strategies which developed in the second half of the 20th century, museums and the task of the curator has shifted from interpretation and the provision of narratives to the staging of experience itself; a role which he describes by comparison to that of the director [16]. The so called ‘white cube’, as well as the broader trend described as a turn away from encyclopedic display and towards monothematic display characterize such developments, while museological strategies such as the ‘white cube’ are comparable to the metaphysical space of a chapel that constructs the encounter with the work in similar terms into a transcendental experience, one removed from the imperative of interpretation, he maintains [17].

It is arguable however, that what Serota describes with the turn to experience as an alternative to interpretation, the latter seen as a 19th century phenomenon connected to the demands of education, connected to the contexts of nationalism and rise of historicism from the perspective of museum history, is not simply an attack on narrative as the privileged location of interpretation and access. Considerations of accountability for public money received by museums today is however the prevalent context that underlies such a general turn and trend in the museum profession whereby access to knowledge is equated to the creation of simplified text based narratives. Yet should the pragmatic context of funding be responsible in principle for the drawing of policies concerned with modern museum’s response and relation to the making and keeping of knowledge, policies that connect or separate the modern museum from historically related institutions such as Libraries and Archives, for example? Should considerations of funding shape museum’s approaches to knowledge, the ordering and distribution of knowledge, a task both at the core of a museum’s mission but also at the core of modern museum’s inception, a process almost synonymous to the concept of the modern museum?

The equation between access and interpretation, and by extension knowledge making to narratives that modern museums and the public turn have brought about, is a restricted way of thinking about the museum, we would like to argue, as far as objects based communication is concerned, if a historical or historicized perspective on the relation between collections, notions of order and knowledge is adopted. The consequences of the latter are important also for the reframing of relations between museums and other institutions that make and deliver information content but also architectures and protocols about the diffusion of information and knowledge, as archives, libraries and museums traditionally have done. Indeed, despite the current emphasis on interpretation in museological practice as a notion almost equivalent to the notion of access in museums today, access to knowledge was far from directly linked to easily digestible narrative encountered at first sight at the moment of the inception of the museum in its modern sense, we would like to show, nor linked to visibility itself and not to language produced structures of association as locations of interpretation and meaning. The museum as a spectacle of specimens, on the contrary, is a notion fairly recent and far removed from the intellectual foundations of the museum in the early modern period and against examples of research and scholarly collections resembling the structure and role of archives and scholarly libraries that are in place also today and in the same conditions of operation. Indeed, the notion of the visible collection tied to an understanding of accessibility that invests the collection and visibility with meaning cast as populist interpretation digestible by all is a 20th century construct and one removed from the idea of the museum itself if one looks for the latter against its modern foundations in the early modern period.

The example of 16th century early modern prototypical museum collections demonstrates the latter, as well as examples of Libraries and their holdings prior to the 19th century. The notion of the museum as a primarily research institute, a repository of knowledge but also the location of reliable new knowledge via research practices, is a significant component of the museum imaginary and of its strong ties to the institutions of the Library and the Archive, if we are to take up examples from the foundations of the museum in the early modern
period. Information history and philosophy as well as the notion of the archive itself, in this light, may provide a location, theoretical and material against which we may revisit the role of museum in relation to the notion of access beyond a restrictive narrow understanding of interpretation. If reading collections as stories is a technique dear to museum educationalists today, it is not the notion used to link material records and artifacts to kinds of order and the order of knowledge in 16th century, as Arthur MacGregor has shown with the example of the Ashmolean Museum, Oxford [18, 19].

If the telling of stories and the use of a historicist imperative became the dominant narrative in public museums of the 19th century, the examples of the National Archaeological Museum of Athens and the National Gallery of Athens being no exception to this development, early study collections from the 16th century onwards demonstrated little interest in the story telling component involved in one’s confronting with the collection and in a seemingly shared by all public aspect of the collection, as far as communication is concerned, being in fact attempts to link the visual, material and cognitive in way in which the tasks of keeping and ordering material objects in the collection was directly linked in display to the necessity of one’s using one’s memory and imagination actively, as preconditions for the production of meaning out of the collection; a mechanism very different from an act of reading meaning out of material things via the textually produced and linguistically significant narratives that museums have resorted in recent years as domains of interpretation. An example of such a radically different philosophy involved in the practices of collecting, display and communication peculiar to the 16th century cabinets is the way in which collections were kept, invisible to the intruding eye, kept away in cabinets and boxes, to be encountered as visible but also sensible objects only against the conditions placed by the ordering principles and cognitive key that let to their unveiling and the unveiling of knowledge seen as peculiar to their place, presence and role as collection.

Memory is the key example in this light and in the mechanism which early cabinets used in mobilizing both imagination and the material presence of the objects to lead to particular meanings and encounters as meaningful things, in epistemological terms. If linguistic structures and the reading of the collection against narrative is the dominant understanding proposed by museum professionals and educators as well as in their privileged notion of access, the use of objects and collections as rhetorical devices where links to words were arbitrary but functioned only against one’s ability to activate memory and imagination, were the techniques of ordering and displaying that 16th century cabinets used as Hooper-Greenhill’s analyses of 16th century cabinets shows. nor a strategy compatible to recent scholarship encountered in the domain of art history, to cite a further example from contemporary practice† [20]. This is not to say that all post 16th century cabinets may be seen as comparable entities to the modern museum and its role and tasks as many research collections often defaulted into public spectacles and tourist attractions, commonly at a later stage. Such is the example of the Leiden Anatomical theatre which became an object of curiosity and a tourist attraction in a way completely unconnected to structures and knowledge making disciplines but also a number of other collections that toured and were displayed as rarities and curiosities for a price as popular spectacle. Examples of cabinets of curiosities linked in the context of museum history to important collections and museums in the modern sense, exist in the literature and their core survives until today, being also very well documented, as the example of the early Tradescant rarities, a cabinet of curiosity that formed the original nucleus of today’s Ashmolean Museum, shows.

The early catalogue has been traced against the mobility of the objects across Oxford University and London collections by Arthur MacGregor from the early modern period to the current day [21]. What this example underlines is the close links between collecting practices and knowledge architectures as the location of the modern museum concept. Indeed, the cabinets of curiosities following the 16th century are widely acknowledged

† Non-language based forms of cognition such as memory and imagination as opposed to a linguistic approach to the task of making sense out of material things have been important considerations in the academic dialogue that contemporary historians begun engaging with recently. The latter faculties, on the other hand, were also dominant in the techniques that 16th century collections of cabinets of curiosities developed in addressing the audience, in turn, we would like to emphasize. See for example CIHA 2012 and Kaniari, A. ‘Material Objects as impossible things: Panofsky, Kubler and Post War Art Histories’, Session 1 Questioning the Object of Art History, The Challenge of the Object International Conference organized by CIHA, Nuremberg 2012. Forthcoming in G. Ulrich Großmann/Petra Krutisch (eds.) The Challenge of the Object / Die Herausforderung des Objekts, Congress Proceedings, T. 1-3. Nuremberg 2013.
in the literature today as tools designed to facilitate an encyclopaedic enterprise. The aims of the cabinet, the editors of the Ashmolean Museum website suggest, for example, exemplified its encyclopedic mission peculiar to “the collection and preservation of the whole of knowledge” [22]. According to the editors, the cabinet of curiosities, or Wunderkammer, first appeared “as the continuation of work initiated by the great ancient thinkers, such as Aristotle and Pliny the Elder”, being an attempt to place such earliest encyclopaedic practices associated with the act of collecting against a classical framework [22].

In this context, new observations and practical experiments could test and enrich knowledge derived from textual sources. Empirical activities could resolve questions prompted by the close analysis of ancient texts, made more widely accessible in the decades that followed the invention of the printing press, they argue, situating the cabinets against such a framework of thinking and doing. Such a notion of the cabinet remained consistent, they argue, in its role as a site of collection and display where the whole of nature could be brought together in microcosm, for the benefit of closer and more detailed analysis. “The control of nature was the goal of the early collecting practice, and was the driving force behind the ordering and cataloguing of objects and artefacts”, they add [22]. Thus collections resulting from this process clearly were founded on an organizational principle. The latter while foreign to the modern collector, was dependent on philosophical considerations relevant at the time. Collectors of the sixteenth and seventeenth centuries, in this respect, it is widely accepted today, can be seen to have “devised strategies which included the systematic categorization of the objects in their possession” [22].

Even if “the criteria for organization were at times subjective”, giving rise to differences from one collection to the other, objects in the context of such collections are accepted as having been recorded and displayed in an organized manner [22].

The example of the Ashmolean Museum and its history furnishes us with evidence attesting to the former notions emerging from the literature with regard to 16th century conceptions of the cabinet and the role and nature of the collection within this context. As David Berry writes for example, in the Museum’s website incorporating information both from the printed catalogues as well as Arthur MacGregor’s published history of the museum, in 1656, a catalogue of the Tradescant collection, which is seen as the original core of the later formed Ashmolean museum, in fact a cabinet collection, was sent to print. § Within it one can find a record of the contents of both the ‘Ark’, the cabinet collections as addressed by the Tradescant family, their original collectors and proprietors, and its adjacent garden. Yet the catalogue was “funded almost exclusively by Elias Ashmole” [22]. Entitled Musaeum Tradescantianum, according to Berry, was the first of its kind to be published in Britain, and, as such, “remains today a landmark in the field of English museological studies” [22]. “While the younger Tradescant was credited with the authorship of the catalogue, a considerable debt was owed both to Ashmole and to his friend, Dr Thomas Wharton” [22]. In acknowledging this, Tradescant stated, in the introduction to the catalogue, that it was his associates who had ‘pressed [him] with the argument, that the enumeration of these rarities (being more for variety than any one place known in Europe could afford) would be an honour to our nation, and a benefit to such ingenious persons as would become further enquirers into the various modes of natures admirable works, and the curious imitators thereof...’ [22]. As Berry adds, towards the end of the introduction, “directed to ‘the Ingenious Reader’, Tradescant gave a brief description of the method used in the organization of the rarities listed in the catalogue” [22]. I reproduce the account as it is particularly telling of both collectors’ awareness and use of organizing principles in cabinet collections following the 16th century [22]:

‘Now for the materials themselves, I reduce them unto two sorts; one Naturall, of which some are more familiarly known & named amongst us, as divers sorts of Birds, foure-footed Beasts and Fishes, to whom I have given usual English names. Others are less familiar, and as yet unfitted with apt English terms, as the shell-Creatures, Insects,
Minerals, Outlandish-Fruits, and the like, which are part of the Materia Medica; (Encroachers upon this faculty, may try how they can crack such shells) The other sort is Artificialls, as Utensills, House-holdstuffe, Habits, Instruments of Warre used by several Nations, rare curiosities of Art, &c. These are also expressed in English, (saving the Coynes, which would vary but little if Translated) for the ready satisfying whomsoever may desire a view thereof.

As Berry also notes, this statement shows that Tradescant consciously employed an organizational principle in the display and formation of the collection, based on a classificatory system which differentiated “between the wonders of nature, or naturalia, on the one hand, and the works of man, or artificialia, on the other” [22]. This division, in turn, he adds, was “typical of the kind employed by his contemporaries” [22]. On the other hand, as Berry notes, “the further classification of objects was generally dependent on the individual intentions of the collector involved” [22]. “In Tradescant’s case”, he explains, “objects placed into the first category, that of naturalia, were further classified into sub-categories consisting of the three primary orders of nature (animal, plant, and mineral) as then defined [22]. Objects placed into the second category, that of artificialia, were further classified by type, often loosely defined” [22]. At the same time, little priority was attached, “by the collector himself, to one form of evidence over another”, while all forms of data “held equal weight when considered as parts of the whole of knowledge”; the example of the Tradescant catalogue shows, he concludes, the bounds of the encyclopedic enterprise that collecting exemplified, extended to include objects both of myth and of reality [22].

Being an exercise rich in implications for the history of collecting itself, MacGregor’s attempt to retrace the material objects listed in the original catalogue, now dispersed against many of the Oxford Universities collections, provides us with significant conclusions for any attempt to revisit the nature of the museum today and its possible links to institutions such as libraries and archives. Such a link prior to the 19th century was more than obvious, as many collections comprising objects from all three categories of current institutions show and as the example of the Oxford University Bodleian Library and its possessions seen in the context of history of collecting demonstrates. The library first opened to scholars in 1602, while it incorporated an earlier library erected by the University in the fifteenth century to house books donated by Humfrey, Duke of Gloucester [23]. Even though the core of the old buildings has remained intact ever since the collections became increasingly enriched, thanks to the efforts of the Library’s great benefactor Sir Thomas Bodley (1545–1613), a Fellow of Merton College. Bodley’s money was accepted in 1598, and the old library was refurnished to house a new collection of some 2,500 books, some donated by Bodley, some by others [23]. Thomas James was appointed as a librarian and following the opening of the Library on 8 November 1602, the first printed catalogue was published in 1605, while a new edition of 1620 ran to 675 pages [23]. In 1610 Bodley entered into an agreement with the Stationers’ Company of London under which a copy of every book published in England and registered at Stationers’ Hall would be deposited in the new library which today comprises one of the copyright Libraries of Britain [23]. Yet, the Bodleian did not simply comprise collections of books and manuscripts. Pictures, sculptures, coins, medals, and ‘curiosities’ - objects of scientific, exotic or historical interest, including even a stuffed crocodile from Jamaica, where part of its collections [23]. In different parts of the present library buildings and especially in the gallery on the top floor of the Schools Quadrangle one may still find a series of Old pictures on display attesting to the wealth of its collections and their eclectic character particularly in the period prior to the 19th century. A large part of the Arundel Marbles, the first collection of antique statuary to be formed in England, for example, was also part of its collections in the 18th century, being acquired in 1755 following an act of gift by the Countess of Pomfret [23]. Being exhibited in two of the ground-floor rooms around the quadrangle while with the opening of the University Galleries – now the Ashmolean Museum – in Beaumont Street in 1845, the marbles, as well as seventy pictures from the top-floor gallery were transferred to the Ashmolean, while from 1788 onwards, the rooms on the first floor were given over to library use [23].

Looking at the history of institutions and their links to knowledge making, not against the particular biographies of objects but against the creation of knowledge that their acquisition and mobility as and against other collections entails, a methodological tool which history of collecting applies to the study of material records and museums, may act here as a strong case for the relations, historical but also epistemological between the
museum and the archive. What collections as early museums and archives have in common, we would like to argue, is the idea of the collection as an ordered entity, a set of principles which become registered and may be seen to describe collections as uniform entities via the tool of the index. Both the Ashmolean and the Bodleian Library can be taken as examples that illustrate an early modern legacy for the modern museum, in this light, against the idea and material object of the index itself. Indexes of objects might be seen as one of the older documents describing but also often constituting collections as legal entities and possessions. If lists predate catalogues, illustrated catalogues of collections appear to become published only after the formation of 16th century cabinets of curiosities comprising natural history collections as the example of Ferrante Imperato’s Dell’Historia Naturale (Naples 1599), being the earliest illustration of a natural history cabinet, shows. While the Bodleian, on the other hand, has a series of holdings today that could easily be classified under the headings books and special collections of printed material, manuscripts but also ephemera, prior to the 19th century a number of material artifacts comprised its collections, many of the portraits still on display in the upper gallery attesting to such an earlier collecting legacy concerned with a division of knowledge domains and disciplines diverse to the logic following the 19th century and its imperative for fragmentation and specialization.

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