NORMALIZING INFORMATION FROM VARIOUS ARCHIVAL RESOURCES

Ifigenia Dionissiadou

Benaki Museum, Koumbari 1 street, Athens, Greece

idionissiadou@benaki.gr

Abstract. Information in museums often goes back many decades and is seldom of a certain quality level. Primary information resources are usually analog registration catalogs which provide objects with an ID code number followed by a short description, thus transforming them from common physical objects into unique museum items. From then on, the amount of information produced about an object is related to its historical, artistic or scientific value, but also to the standard quality of curation provided by the institution. This paper focuses on issues regarding the follow-up of information about museum objects: gathering and regulating previous information, dealing with augmented and often arbitrary resources, confirming, editing and updating information, while also keeping previous knowledge and reasoning about its change, in an effort to provide the wider possible perspective, to avoid repetition of misleading/ ambiguous references and to develop an information system worthy to trust. It also discusses the considerations encountered by those who perform digital content curation, as well as their role within the chain of knowledge.

Keywords: Digital Content Curation, Interdisciplinary Approach, Information Management System

Information about museum objects often goes back many decades, during the time that the object was found or was acquired by its first owner. In archaeological museums those information are often extracted by excavation diaries or other types of documents that accompany the object, when it first enters the museum collection. In the case of donated or purchased objects it is the documents confirming the transfer of ownership that provide the earliest object descriptions. Nevertheless, the most reliable source of primary information about the museum objects is the museum appendix, which lists each museum item with reference to a museum identification number followed by a short description of properties and information about its provenance and historical background.

From then on, the amount of information produced about an object is related to its historical, artistic or scientific value, but also to the standard quality of curation provided by the institution. Objects that are regarded valuable are studied, conserved and maintained with greater care, are exhibited and published more often, thus the amount of information about them grows fast, stimulating the production of knowledge. Well established institutions with sufficient scientific personnel are able to maintain object management procedures that produce adequate information for all the collection items – detailed object record, image reproduction, proper conservation etc, – whereas poorly equipped museums, even if responsible for curating objects of great importance, are often unable to produce the proper information and disseminate knowledge about them.

Before the Information Technology development, information and knowledge about the museum objects was managed through several archival sources, like card-catalogs for the objects, other card-catalogs for the artists/creators of the objects, referenced lists of subjects matters, alphabetical lists of museum donors, appendixes listing the location of objects, different conservation report appendixes etc. No doubt that this manual system was the only available for accessing and connecting the different parts of knowledge, however it inevitably suffered of multiple inconsistencies, difficulties in updating and repetition of human mistakes.

During the last decades, the accumulated knowledge about the museum objects, is being transferred to large databases and museum information-management systems, in order to be properly handled, easily updated and widely accessed by various types of users. The interconnection of the several previous handwritten registers improved the information flow, but also revealed certain issues that had to be addressed:.

- **It is not only the knowledge that develops over the years, but also the terminology that expresses it**

There are certain archaic expressions regarding styles, techniques or object names that have been altered during the years and have been replaced by others, even though they mean the same or a very similar thing. Furthermore, there are expressions of historical periods or historic places, names of people's groups and political events that are not considered proper or politically correct any more. And certainly there are expressions that are now regarded completely wrong, because our knowledge changed – like object styles thought to have been developed in a specific production place, which was referred into the style-name, and is now proven to be incorrect. Most of the above expressions and appellations are characteristic of a specific historical facet during which they were used, thus providing information about the context within which the specific documentation was being done. When changed, a reference of the previous expression should remain as a synonym or a related term.

- **Peoples' names may change due to the change of their role, but also because during different circumstances different appellations are being used**

This is especially true about the names of women, who are recorded before and after marriage. The registrar/documentalist has often a tricky job to do, in order to avoid creating false duplicate records of the same person. Things are getting even more complex regarding an older attitude to refer to the wife as Mrs "husband's name"; or the modern attitude that a woman changes her naming every time she gets a divorce. Similar obscurities are found in historical names of members of the clergy, the military or the royal families, whereas name and title are firmly linked. Titles change over life-time and appellations of the same person might considerably alter according to her/his specific role. In most such cases, it needs a lot of expertise and time-consuming research to assign attributes correctly. Additionally, there is a question whether the documentalist is entitled to produce that type of definitions, and to proceed to mass attribution of new features based on general conclusions. Occasionally certain aspects of individual cases, quite delicate to be encounter during automated editing, might be abstracted away.

Last is the case of people's appellation with different names according to specific contexts: special appellations of emperors on coins, differentiated transliterations of Greek, Chinese or Arabic names, nicknames of people when referred in the press etc. Within this mainly linguistic case, the circumstances that alter the naming approach are often vague and difficult to detect, as they often regard personal preferences and choices of expressions according to a specific scientific viewpoint of the expert who assigns them. Preferred and alternative terms might ease the problem, provided that there is an agreement among scholars on the preferred term, which is not always the case.

- **Object identification (ID) numbers sometimes change, creating chaotic situations and serious retrieval mistakes**

Changing museum ID numbers without updating all the previous resources has always been a common wrong practice. Complete updating was almost impossible in the past manual management system, as ID numbers where handwritten on the back of photographs, on the object itself, as well as on many different appendixes, difficult to coordinate their change. As a consequence, objects ended up with two or more different museum numbers, which was very confusing. Those objects were sometimes also wrongly referenced and published in books and exhibition catalogs, causing further managerial troubles. A similar case regards objects that were registered together and, after further research, spitted into many ID numbers; or objects –usually sherds of pottery - that were found to belong together and, during conservation treatment, reunited into a new museum object. Cases of misleading object ID may take days to be solved and lots of searching into the several different analog archives. It is important to be thoroughly documented, in order to reveal the wrong paths, create transparency, gain the user's trust and avoid repetitions of the same mistake.

- **The quality of information improves over the years, often in uneven levels**

When the object enters the collection, the information given by the person who found it – excavator, donor or vendor – is recorded. At a later stage this information is further investigated and often revised by the curator or other expert of the collection. Consequently new knowledge is produced and existing knowledge is specified. Often such revisions involve more than one object, and the information system should keep record about the change for all of them, in order to maintain consistency. For instance, an additional way of usage might be noted in the label for a certain agricultural tool, which is studied as part of a particular exhibition; however this new information most probably applies to all similar agricultural tools of the collection. It is a challenge how to annotate that information change in the several different records.

Another worth mentioning documentation practice is the using of high simplicity when first describing the properties of objects, especially in cases when a large number of similar objects enters the museum collection. A good example regards ancient pottery sherds, difficult to recognize from which part of a ceramic vase they derive or what they depict. At a later stage features are described in further detail, but again, maybe not for all the sherds with the same care: certain pieces, chosen to be exhibited or published, might be treated differently - studied more precisely and reveal information about their provenance and technique that might apply to the whole group. Again the question arises in which degree the documentalist is the appropriate person to take attribution decisions and implement changes concerning a purely scientific approach.

- **Different requirements should be encountered and variant viewpoints should be addressed**

The museum information system should fulfill the needs of a variety of users. Those individual needs are in some cases conflicting to each other, and in many more cases won't exactly coincide, even among scholars. There are certain expressions of properties that are considered comprehensive when describing a certain collection of objects, and completely wrong and imprecise when describing another. The term "photograph" might be adequate to describe a small portrait hanging within a silver pendant, but can't be accepted as proper by the Department of Photographic Archives, which regards it as a generalized name of a technique. Enamel is a kind of material when describing the components of a jewel, but seen through the eyes of a conservator, it is the result of a certain manufacturing process. Likewise, terms like "drawing", "icon", "idol", "figure", "portrait" and "inscription" are established terms carrying different meanings according to the collection they describe. Important interdisciplinary differentiations of viewpoints may lead to difficult decision making within an

information system aimed to meet the expectations of all the specialists, but also to support generalized cross collection questions asked by the administrative departments and the public.

- **Many versions of the same context are produced during the several museum activities**

Last, I will mention one of the most crucial issues of a modern information system, that of storing information and knowledge created for different usage. In the recent years information systems export information directly to the audience, providing the context of online access to the collection, of virtual tours, QR-codes and other special apps. They also tend to import information and knowledge about the museum objects from the exhibition labels, publication entries and websites of other official bodies. It is an unsettled issue how to archive all those differentiated sources and present the most applicable for each case. A recent piece of information might be more valid; however its expression might not fit to the context we want to present. Whatever information management policy is implemented, the growing mosaic of versions of knowledge produced by registrars, curators, educators, conservators and scholars - often produced in dissimilar circumstances and serving different purpose -forms an extremely rich source of interwoven knowledge; knowledge which is nowadays further enriched by a new type of audience knowledge, produced by the interaction of the museum with the public on several recorded occasions. There is a question on how to treat and organize this diverse repository of knowledge, in order to retrieve the essential parts when precise and exhaustive results are required.

Digital content curation, a still unclear process to exercise

After describing the most common concerns that arise during the process of cultural content curation, I would like to focus on the specific nature of the work, that the digital curator/documentalist has to accomplish. From all those mentioned above, it may be concluded that the work of those, who undertake the task to supply the museum information system with data deriving either from analog sources or from recent and improved information sources, is a task that requires taking initiatives, conducting research, interpreting and analyzing properties. It also requires qualifications for producing a transparent description of the process of documentation, in order to be unfolded at any point. For the system to be reliable, it is highly important the user to be able to understand why and how an information changed from its previous version. In addition, a deep knowledge of the managerial and scientific issues concerning the collection is required. Consequently digital content curation requires some of the skills of a museum curator, but applied in a different manner, as it is mostly engaged in analyzing than synthesizing concepts and meanings. It also requires skills such as to transform the flexible nature of cultural information into the uptight form of modules and data; to produce clear metadata that will facilitate the users, and most important to correlate information units so as to produce information networks and chains (combinations) that will allow a wide range of broader, narrower and alternative retrievals within the system.

The skills but also the responsibilities of a digital content curator are not yet adequately defined; neither are there specific procedures to be followed based on commonly accepted rules. Therefore there are a number of issues still open for discussion: to what degree should the knowledge stored in the digital systems be analyzed, considering that there might be several aspects and versions, but also qualitative differences? The knowledge that derives from the several sources is surely valuable for the museum, therefore it is considered important to be stored and preserved, not only for research purposes but also because all this diverse knowledge from publications, exhibition labels translated in several languages, educational applications etc, is expensive to produce, therefore

worthwhile to reuse in various occasions and disseminate though many kinds of media. To what extend however, and which parts of the above diverse information is appropriate to enrich and revise the results received by the museum information system, the official carrier of the museum knowledge, expected to primarily provide valid and high quality knowledge? Who is responsible for updating the information workflow, but also for providing the necessary data consolidation and uniformity for the system to demonstrate an overall efficiency in its automated responses? Should there be distinctive levels of information within the information system, and in what formulas can they be developed during the process of documentation but also during retrieval?

In conclusion it is important to set the fundamental priorities, describe methodologies and strategy and define the boundaries of the digital content curation regarding museum information. It is also important that this young curatorial profession is established as a separate discipline within the museum sector, undertaking a series of responsibilities, having clear tasks to accomplish, and constantly exploring and adopting the new challenges developed by the fast growing Information Science Technology.

Bibliography

Dallas, Costis. 2016. “Digital curation beyond the “wild frontier”: a pragmatic approach.” In *Archival Science*, Volume 16, Issue 4, pp 421–457. Abstract accessed August 10, 2018. https://link.springer.com/article/10.1007/s10502-015-9252-6

Dionissiadou, Ifigenia. 2006. “Manipulating information, Producing data.” In the proceedings of the CIDOC conference 2006, Gothenberg, Sweden. Accessed August 6, 2018. http://network.icom.museum/fileadmin/user_upload/minisites/cidoc/ConferencePapers/2006/Dionissiadou_Ifigenia.pdf

Edman, Anneli. 2006. “A process pattern for knowledge management within Museums.” In the proceedings of the CIDOC conference 2006, Gothenberg, Sweeden. Accessed August 8, 2018. http://network.icom.museum/fileadmin/user_upload/minisites/cidoc/ConferencePapers/2006/Edman_Anneli_2.pdf

Kirschenbaum, Matthew G., Richard Ovenden and Gabriela Redwineet. 2010. *Digital Forensics and Born-Digital Content in Cultural Heritage Collections*, Council of Library and Information Resources. Report Accessed August 6, 2018. http://www.clir.org/pubs/reports/pub149

LOW, Jyue Tyan and Martin Doerr. 2010. “A Postcard is Not a Building -Why we Need Museum Information Curators.” In the proceedings of the CIDOC conference 2010, Shanghai, China. Accessed August 9, 2018. https://www.ics.forth.gr/_publications/CIDOC_2010_low_martin.pdf

Mullan, Eileen. 2011. “What is Content Curation?” In *EContent* magazine, Nov 30, 2011. Accessed August 6, 2018. http://www.econtentmag.com/Articles/Resources/Defining-EContent/What-is-Content-Curation-79167.htm

Peukert, Hagen. 2017. "Curating Humanities Research Data: Managing Workflows for Adjusting a Repository Framework." In *International Journal of Digital Curation*, Vol 12 No 2. Accessed August 6, 2018. http://www.ijdc.net/article/view/571

Pryor, Graham and Martin Donnelly. 2009. "Skilling Up to Do Data: Whose Role, Whose Responsibility, Whose Career?" In *International Journal of Digital Curation*, Vol 4 No 2. Accessed August 6, 2018. http://www.ijdc.net/article/view/126/133

Ray, Joyce. 2014. "Getting a Handle On Digital Curation: Education, Practice and Identity." In the proceedings of the CIDOC conference 2014, Dresden, Germany. Accessed August 6, 2018. http://network.icom.museum/fileadmin/user_upload/minisites/cidoc/ConferencePapers/2014/C-1_Ray_paper.pdf