Spatial orders of memory and knowledge

Architectural schemes for collections in seventeenth-century Sweden

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Abstract: *In seventeenth-century Europe, theories of knowledge were developed in symbiosis with the growth of new architectural types, themselves devised for the practices of science, collecting and ordering of knowledge. The period's intellectual endeavours, so the project argues, have subsequently been unsurpassed in utilising the built environment and mental architecture systematically for cognitive processes, and in ordering theory by means of spatial, architectural and urban structures. Theories of memory and knowledge continued to be practised and developed parallel to the progress and consolidation of new scientific ideals. The project studies the growth of the architecture for collections and science in Sweden in the mid- and late seventeenth century, and the theory imported and developed in context with them. Central to the project is the argument that the collecting schemes of the seventeenth century were not premature undertakings that evolved into late eighteenth- and nineteenth-century museums, but cultural forms of collecting that only in part survived in subsequent practices.*

Keywords: Collecting, ordering, classifying, memory, art of memory, knowledge, architectural types, Kunstkammer, anatomical theatre, repository of rarities, Sweden, Queen Christina, Olof Rudbeck the Elder, Magnus Gabriel De la Gardie, Carl Gustaf Wrangel.

After the Thirty Years War Sweden had established itself as one of the most powerful states in Northern Europe. With new engagement in European affairs followed a remodelling of cultural codes of conduct within the royalty and nobility and a reformation of the academic system. Large-scale and systematic collecting developed for the first time in Sweden, modelled on long-established princely ideals of continental Europe and new practices at leading universities, particularly those dedicated to the pursuit of Cartesian and Baconian science. With the growing collections came new requirements for the arrangement of the specimens and artefacts, physically in architecture and theoretically

with classificatory models. The latter, largely conceived as spatial or two-dimensional models, were translated into architectural arrangements of the physical objects, leading to an interplay between an architecture of the intellect and one of the visible world.

The postdoctoral project *Spatial Orders of Memory and Knowledge: Architectural Schemes for Collections in Early Modern Sweden* enters into this pioneering period of the mid- and late seventeenth century.[1] With the focus on the milieus around three patrons of science, architecture and culture, the project analyses the spatial and classificatory arrangements in new forms of architecture and furnishing. It attempts to recreate a selection of building schemes by means of previous scholarship and archival sources to employ for ruminations on the intellectual and cognitive use of collections. In the Renaissance, intellectual models influenced by the mnemonic known as the art of memory, *ars memoriae,* conceived of human memory as a capacity for storing information. By the mid-eighteenth century these models had to a great extent been replaced with models in which the faculty of memory is seen to depend on organising knowledge externally to the mind, in catalogues, books and systematic collections. In the Renaissance model, knowledge objects were stored in an organising structure in mind. In the new model, a large amount of individual objects could be allowed to be forgotten, leaving more cognitive capacity for memorising the classificatory system that supplied them with interrelations. In seventeenth-century Sweden conventional practices of memorisation coexisted with newly developed techniques of relieving and augmenting memory.

The project analyses the architectural arrangements of objects in relation to, for example, encyclopaedic memory and knowledge systems, research practices at universities, teaching and dissemination of scholarship, owners' or custodians' arrangement and demonstration of collections, and visitors' experience and memorisation. Previous scholarship has conjectured early modern schemes for collections in Sweden as vehicles for memory (Losman 1982, Nielsen *et al.* 1993, Losman 1994, Boström 2001). This study brings their ideas further by demonstrating the workings of sorting, ordering, arranging, memorising, teaching, disseminating, seeing, conceiving, learning and recalling. It situates the schemes and their originators in a European context of memory and knowledge cultures, which were characterised by collecting, travelling and exchange.

DEVICES FOR SEEING AND KNOWING

Architecture for both collections and classifications operates as devices for seeing knowledge. The Latin *theatrum* and *museum* were used interchangeably to designate repositories for collections in the sixteenth and seventeenth centuries. As theatre, the repository became associated with the visual technology known from the Roman circular amphitheatres in Rome and Verona, the Vitruvian semicircular theatre, theatres of knowledge like those of Giulio Camillo and Heinrich Khunrath and encyclopaedic models drawn up in treatises named accordingly, for instance *Theatrum mundi, Theatrum Vitae humanae* etc. As museum, it bore connotations of the Ptolemaic *museion,* as an academy and place for research. The suite of rooms in the architecture of the seventeenth-century *Kunstkammer,* like the majestic ones in Munich, Dresden and Vienna, and the circular, square or octagonal architecture of the *theatrum*

anatomicum, famously filled with mounted skeletons, human skins and other preparations, as well as non-medical curiosities, as in Leiden, Copenhagen and London, appear as two spatial technologies of the same origin, enabling the visual command over specimens and artefacts, by mobile or static spectators. While the spatial arrangement of things enabled seeing in a literal sense, taxonomic ordering by means of the variables of the objects enabled them to be seen as scientific objects, as providers of knowledge.

Without the extensive scholarship on seventeenth-century collectors, collections and architectural schemes in Sweden in the last 150 years or so, this project would not have been realisable. It owes everything to previous mappings of source material, contexts and interrelations. The project has a wider scope than much of previous scholarship, however, in that it embraces within its theoretical perspective schemes as different as the extensive royal collections at the Stockholm castle Tre Kronor under Queen Christina, the ideal and built suites of rooms in palaces of count Magnus Gabriel De la Gardie, the professorial repository of rarities of Olof Rudbeck the Elder and the *theatrum anatomicum* at Uppsala University, built under the rectorship of Rudbeck and chancellorship of De la Gardie.

Instead of regarding the separate collections at Tre Kronor as early museums in their own right, or as individual monarchs' collections of paintings, coins and medals and so on, the project appraises them and their repositories as a total scheme, stretching from libraries, *Kunstkammer* and armouries to buildings for wild animals and a garden with native and exotic plants, employed for courtly display and by the intellectual milieu around Christina. Equally, De la Gardie's architectural schemes are analysed as a visible enaction of knowledge

categories for private and representative use, displaying series of Roman emperors, European and Swedish thinkers, French officers, the famous battles his father had fought, exotic plants, mythological characters and so on, in ordered arrangements of paintings, sculpture and garden beds, in room sequences. In Uppsala, Rudbeck's repository of rarities, *raritetskammare,* is contextualised as a scheme for research, teaching and demonstration, to foreign visitors and local students, rather than as a haphazard personal collection used for self-representation. The anatomical theatre is not just treated as a premise for the dissection of the human body, but as a device for seeing, unveiling and learning of the microcosm of the human and animal body, by demonstration on corpses, skeletons, preparations and painted depictions. For a more nuanced understanding of Swedish seventeenth-century schemes for collections, so this project proposes, the writing of their history should not necessarily consider them as embryos for later disciplinary collections, institutions or building types, but as expressions of contemporary desires and ambitions, devised in exchange with the larger continental cultural and intellectual landscape.

Swedish schemes

Archival source material is employed for the recreations of the Swedish schemes, including drawings, sketches, lists, inventories, protocols and letters. Most of the accessed material is located in Uppsala University Library, the Royal Library and the Swedish National Archives in Stockholm. Documents that already have been transcribed, commented and published by previous generations of scholars are of great value in order to access and interpret the material. These include the work on art collections by Olof Granberg, letters and

protocols by Claes Annerstedt and Hans Sallander and architectural drawings and sketches by Tord O:son Nordberg and Sten Karling. Seventeenth-century publications, particularly catalogues and dissertations, complement the archival sources. In order to analyse the source material a gamut of previous scholarship is consulted, including disciplinary studies of the collections or collectors of art, botany, numismatics etc., studies of the history of ideas and science, studies in the history of architecture and building archaeology, political history, biographies and histories of institutions.

EUROPEAN COLLECTING

In order also to situate the Swedish schemes in relation to contemporary schemes and intellectual developments elsewhere in Europe, a broad reference library is used. One part of it concerns histories of collecting, collectors and collections. Scholarly endeavours dating back to the seventeenth century provide tools for comparison, such as the listing of collections and collectors topographically, from Johann Daniel Major and Caspar Friedrich Jenckel to Barbara Jeanne Balsiger, thematic or disciplinary studies by the likes of David Murray and Arthur MacGregor, studies of historical developments like those of Julius Schlosser and Elisabeth Scheicher and listings of early modern treatises on collecting and catalogues of collections by Gustav Klemm, Balsiger and Christoph Becker. Add to these the growing number of studies of particular collections and collectors. Seventeenth-century treatises and catalogues are to great extent available due to digitisation projects by libraries, Google Books and others. It gives contemporary scholarship fundamentally different tools compared to research pursued

only a decade or two ago, when the availability was restricted to secondary sources or rare physical copies. Further contextualisation is brought by disciplinary histories , for instance of anatomy or botany.

The last decades have seen an increased interest in the collections of books, artworks, curiosities, specimens, instruments etc. in early modern Europe, adding to a few handfuls of surveying studies of the preceding century or so. A view of pre-nineteenth-century collections as unsystematic and more interested in what was perceived as "alien, anomalous, dissimilar, barbarous, gross, or rude […] maintained and produced, as something Other" (Mullaney 1983:43) has largely been replaced with a concern for the early-scientific and pre-art-historical taxonomies and knowledge orders in their own right. The classification systems and thought models that underlie the structure of collections and their architectural organisation have been reappraised by recent scholarship, adding important corrections to earlier studies. German research milieus, in particular, have given important theoretical contributions in this direction, situating collecting in wider contexts of knowledge compilation, systematics and politics (e.g. Minges 1998, Büttner *et al.* 2003, Segelken 2010).

MEMORY AND KNOWLEDGE

Seventeenth-century thinking was deeply concerned with theories and techniques of memory and knowledge. The foundations for memory theory lay in the works on rhetoric by Aristotle, Cicero and Quintilian, and were taught as a part of eloquence, for instance at Uppsala University. The mnemonic technique art of memory was outlined in the rhetorical writings of the latter two. It advocated placing associative imagery, *imagines*, in individual

places, *loci*, in memorised architecture. The technique was generally known across Europe and practised in relation to, among other things, the ordering of collections. A Swedish example can be found in a memorandum written to the university chancellor in Uppsala in 1703. Vice librarian Johan Eenberg reports how, after the move of the book collection to new premises in the early 1690s, and before a new catalogue was compiled and the books ordered accordingly, he memorised the shelf location for all faculties in order to use his place-based memory, *memoria locali,* to retrieve books when students asked (Annerstedt 1894:111).

In other ways too, the art of memory found its way into discourses and practices concerned with collections. The Italian intellectual Giulio Camillo became famous in the mid sixteenth century for a wooden theatre construction for which he had developed the practical memorisation technique of the rhetors, who "committed [parts of orations] to frail places as frail things", that is, temporarily, into a technique in which "the eternal nature of all things [would be committed to] their eternal places" (Camillo Delminio 1970:[203–04]). Camillo's blueprint for the structuring of eternal knowledge influenced the ordering principles for collections such as Francesco I de' Medici's *stanzino* in Palazzo Vecchio, devised by Vincenzio Borghini, and Albert V's *Kunstkammer* in Munich, arranged by Samuel Quiccheberg. The analogical affinity between repositories for collections and repositories for knowledge was a common Renaissance leitmotif, as discernable in book titles such as Thomas Lambert Schenkel's *Treasure-house of the art of memory* (*Gazophylacium Artis Memoriae,* 1610) or in Agostino del Riccio's advice for practitioners of the art of memory from 1595:

…do as wealthy and powerful kings do with the many rooms in their palaces; in one room there will be antiques, in another tapestries, in another the silverware, in another the jewels, in another the weapons of warfare […], in other rooms the provisions used to maintain the armies, etc. This is what you must do if you wish to be universal in your knowledge: have many rooms in which to place sermons, speeches, concepts, sayings, histories, and whatever you choose to profess (cit. Bolzoni 2001:251).

In that tradition, the new science of the seventeenth century was formulated as utopias with cities, buildings and halls with collections of specimens, artefacts and instruments, representing universal discoveries and serving to unveil Nature's secrets, as in Francis Bacon's *New Atlantis* (1627) or in the anatomist and avid collector Johann Daniel Major's *See-Farth nach der neuen Welt, ohne Schiff- und Segel* (1683). The project aims to identify how such ideals manifested themselves in the intellectual milieu in Stockholm and at Uppsala University.

Other developments elaborating on the art of memory also influenced Swedish thinking in the period, such as Petrus Ramus's logic, Athanasius Kircher's classificatory attempts and other intellectuals' mnemonic diagrams, emblems and pedagogical illustrations. Notable thinkers, in whose theories the art of memory played an important role, stood in close relation to the Swedish intellectual milieus. René Descartes and Gabriel Naudé, the pioneer of bibliothecarian and bibliographic classification, were both invited to the court of Queen Christina. Gottfried Wilhelm Leibniz, who once had been considered for the position as teacher for one of Magnus Gabriel De la Gardie's sons, and the encyclopaedist Daniel Georg Morhof were among those who praised Rudbeck for his research endeavours in *Atlantica* (1679–1702).

Fig. 1. Ideals for how to collect and arrange collections spread through publications, some of which contained depictions of real or imagined architectural schemes. Plants, stuffed animals, mounted skeletons, scientific instruments, curiosities and more were arranged in classes by means of rooms and furniture. Eberhard Werner Happel, E. G. Happelii Gröste Denkwürdigkeiten der Welt Oder so genannte Relationes Curiosae …, *Hamburg, 1687.*

While Descartes, Naudé and Leibniz integrated aspects of the art of memory into their theories, Morhof was one of the dozens of thinkers who wrote new treatises on the art of memory during the seventeenth century, analysing the classical and Renaissance versions and suggesting new applications for civil professions, education and research.

Culture as memory

Recent developments in Western society and in humanistic scholarship have been characterised as a memory boom, spurring the consolidation and growth of a multidisciplinary field often referred to as memory studies. It directs its attention to the ways in which societies circulate ideas concerning the past through history, politics or acts of commemoration, and some of its more elaborate theoretical enterprises come handy in this project's analysis of seventeenth-century material. In the theory of *collective memory,* drawn up by the sociologist Maurice Halbwachs (1925, 1941, 1947), and its important augmentation into *communicative memory–cultural memory* by Jan Assmann (1988, 1992) and Aleida Assmann (1999), this project finds precise tools to dissect the uses of architecture for processes of remembrance, dissemination and innovation. Halbwachs distinguishes between mental models of the environments and their

154   physical counterparts, arguing for the use of the former in social and cultural remembrance, in a manner that distinctively recalls the use of mental architecture in the art of memory. His theoretical framework could bring clarity to the intellectual operations involving physical and mental architectures in Swedish schemes. It is not uncomplicated or without risks to combine the study of early modern and contemporary memory studies, but previous attempts in this direction, for instance by Mary Carruthers (1998), have successfully shed new light on historical material, making it appear less obscure to the modern mind. Such analyses within the project could be seen as contributions to current debates on the situatedness of memory and knowledge, for instance in memory studies.

The project also leans on studies of early modern memory. Elena Esposito postulates the transition from rhetorical memory practices to forms of remembrance facilitated by catalogues and classifications and ultimately mass media, resulting in what she calls *Kultur als Gedächtnis,* culture as memory (2002). This project hypothesises that the schemes for collections served as devices to optimise an economy of memory resources in that period of transition. The amount of books, artefacts and specimens of many of the growing collections was too large to be memorised by the users, but by classifying the collections and arranging them architecturally, the mass of individual objects could be allowed to be forgotten as long as one knew the order of their arrangement. Classification as a mnemonic tool was in part a product of the sixteenth century, which we can see exemplified in this defence of it from 1561:

… he gave the example of someone who has bought a jewel and takes it home but does not put it in the courtyard, nor the drawing room, nor the bedroom, in order to more easily find it when necessary: rather, not content with just having it in the house or the courtyard, he puts it in the study, or in his most secret chamber; and, still dissatisfied, he puts it into an iron strongbox, in the most hidden and secret compartment of the box, and then in a jewellery case, and in one of the compartments of the case, and thereafter he has no confusion or difficulty in finding the jewel when he wants it, but rather facility, contentment, and greater security (Allessandro Citolino, cit. Bolzoni 2001:249–50).

By employing a spatio-logical system assigned with the categories used for sorting objects, one can direct the cognitive resources to memorisation of the categories, allowing for quick retrieval. Labelling, catalogues and encyclopaedias prosthetically lend the object information value in intellectual processes, adding to the individual's previous education. The pre-emptive act of classifying enables more comprehensive remembrance for large and growing collections.

Architectural types

The project offers a contribution to a discourse on intellectual motives and driving forces for architectural form, and likewise its influence on intellectual developments and knowledge structures. The study of the history of ideas of architecture goes back at least to the 1960s, with studies like Peter Collin's *Changing Ideals in Modern Architecture 1750–1950* (1967). This project continues in that tradition but is particularly concerned with early modern memory and knowledge in relation to architecture. Early modern terms pivotal to such concerns include *theatre, encyclopaedia* and *macrocosm–microcosm.* The project sets out to study theory in a historical context – ideal, applied and practised.
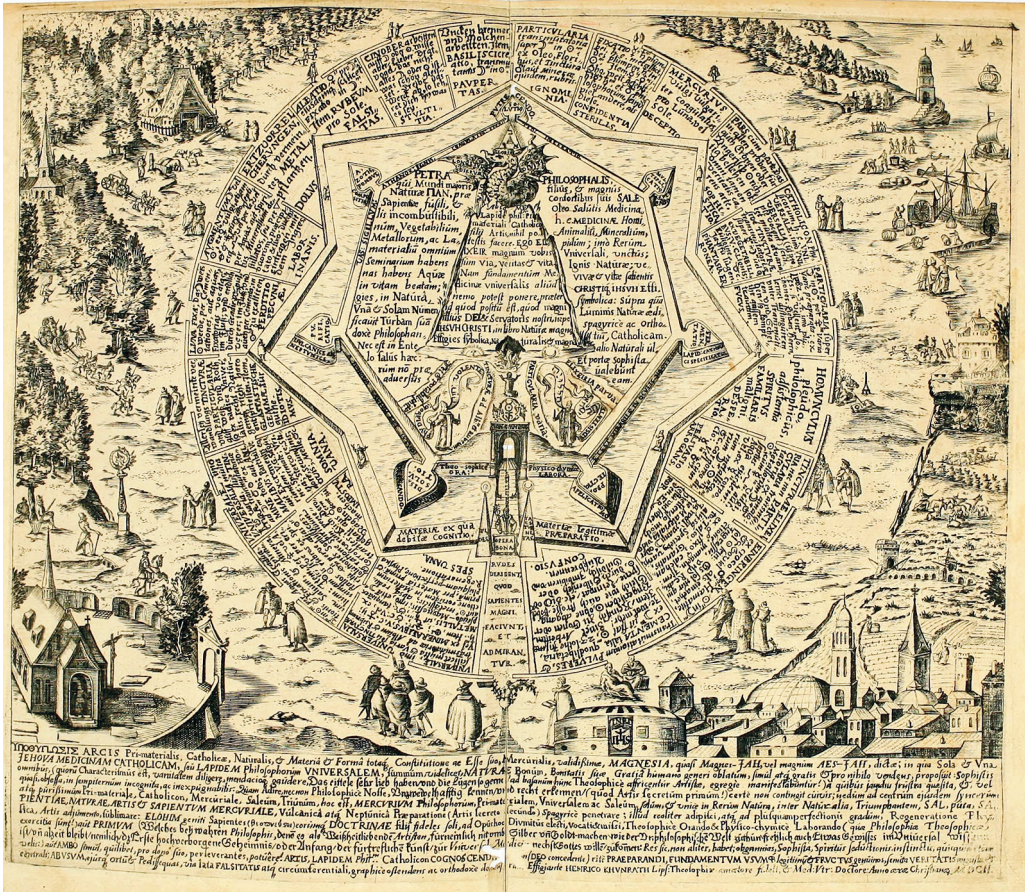
Fig. 2. Architectural models were widely used to structure theory in the sixteenth and seventeenth century. A circular construction such as the citadel or the amphitheatre combined the optical advantages of the architecture with geometrical order, and served as a learning device with roots in the memory theories. Heinrich Khunrath, Amphitheatrum Sapientiae Aeternae, *Hanau, 1608–1609.*

One of the tools for accessing and comparing the architectural material is the scholarship on particular building types, a field of the history of architecture that was developed in the eighteenth century and concerned with the shared characteristics of certain forms of architecture. For the project relevant types include library, *Kunstkammer,* museum, anatomical theatre, gallery, botanical garden and treasury. An inclusion of architectural developments over several centuries under one type, as for instance in the valuable study of the anatomical theatre by Gottfried Richter (1936), could result in the disregard of certain aspects, such as the intrinsic relation to other forms of theatres than the anatomical in the early

156 modern period, or its fundamental concern with collecting and research that characterised the design and use of anatomical theatres during the seventeenth century. So while, on the one hand, the project makes use of findings of such studies, on the other hand, it is critical of their simplification and anachronistic take on architecture specific to particular periods.

Almost absent from the literature on building types are analyses of suites or ensembles of rooms and buildings with different collections, say, a library, a sculpture gallery, a repository of curiosities and a garden with exotic plants, the sequence of which make up a totality of experience and movement. Such amalgamated spatial orders have eluded observation not only from architectural historians but also from art historians and others concerned with the study of early modern collecting and science. The project aims to enter into this field to contribute to a critical revision of the history of building types by being more specific with regard to time and place. By doing that, it associates itself with a field of enquiry into spatial orders of knowledge, that is, the systematics of classifying, manipulating and making objects memorisable and the practice concerned with them (eg. Ophir & Shapin 1991, Markus 1993, Felfe & Wagner 2010).

The project hypothesises that the composition of the ensembles of rooms in themselves posed an architectural problem, where underlying characteristics of memory and knowledge organisation were shared between the types. The project will address the ensemble of rooms and room types as a second level of architectural problem, as one of composition, and pursue the idea of movement through rooms and classes, physically in company of guests, mentally in intellectual work of the owner or custodian, such as structuring a catalogue. The sequential movement finds its counterpart in the art of

memory, which prescribed a mental walk through a series of rooms or along a street, along which images were placed and picked up by the mnemonist. Aided by an inventory with descriptions of the objects, the visitors to the royal armoury in Stockholm were initiated into the classes of the collection as they were led through the rooms in a particular order. The practice followed established conventions, employed for instance already in the Munich *Kunstkammer,* where the visitor should move clockwise through the four wings and around the courtyard. The objects were picked with the gaze, as it were, in an order that resembled that of the classification used to organise the objects. The walk through the rooms was thus a walk through a knowledge order. The project hypothesises that the individual room was but one of several needed to create an encyclopaedic system, and that the sequential arrangement supported memory and learning processes. The architectural schemes were conceived as cognitive or intellectual devices supposed to contribute to the organisation and production of knowledge. Spatiality lent the abstract thought models concreteness and a possibility for orientation and movement. The architecture of a *Kunstkammer* made thinking more perceptible through structure, images and objects.

Cognitive and intellectual use of architecture

During the seventeenth century, theories of science and knowledge were developed in symbiosis with the growth of new architectural types, themselves devised for the practices of science, collecting and ordering of knowledge. The period's intellectual endeavours, so this project argues, have subsequently been unsurpassed in utilising the built environment and mental architecture systematically for

cognitive processes, and in ordering theory by means of spatial, architectural and urban structures. Simple and complex theories of memory and knowledge, characterised by architectural and pictorial aids, continued to be practiced and developed parallel to the progress and consolidation of new scientific ideals. Intricately integrated, the two expressed themselves through architectural visions, which in return served as models for new thinking. It is argued that the study of the architectural schemes offers valuable thinking on the cognitive benefits of spatial ordering of things and of thought. The findings may prove useful in the theory and history of architecture, museology, library science, memory studies, cultural heritage, cultural history, the history of ideas, etc.

Central to the project is the argument that collecting schemes of the seventeenth century were not premature undertakings that, more or less successfully, evolved into mature late eighteenth- and nineteenth-century museums, but cultural forms of collecting (gathering, ordering, arranging, exhibiting, experiencing) – that only in part survived in subsequent practices. The repository of rarities, *theatrum anatomicum, Kunstkammer* and gallery, and suites of such rooms, were vehicles of memory and knowledge processes that only existed in a particular period, the intellectual aspects of which were, to a large degree, lost in the development of new architecture and theory. We should not regret that the seventeenth century schemes were only "crude" embryos of later, "refined" manifestations, but try to understand and appreciate an intricate intellectual and cognitive capacity inherent in them, which to a large degree has been become inaccessible, invisible or blurred to subsequent periods, in which the ordering of memory and knowledge takes fundamentally different forms

and is separated from concerns of architectural theory.

Notes

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Literature

Annerstedt, Claes 1894. *Upsala Universitetsbiblioteks historia intill år 1702.* Stockholm: P. A. Norstedt & Söner.

Assmann, Aleida 1999. *Erinnerungsräume. Formen und Wandlungen des kulturellen Gedächtnisses.* Munich: C.H. Beck.

Assmann, Jan 1988. "Kollektives Gedächtnis und kulturelle Identität." In Jan Assmann & Tonio Hölscher (eds.). *Kultur und Gedächtnis.* Frankfurt am Main: Suhrkamp, 9–19.

Assmann, Jan 1992. *Das kulturelle Gedächtnis. Schrift, Erinnerung und politische Identität in frühen Hochkulturen.* Munich: C.H. Beck.

Bacon, Francis 1627. *New Atlantis.* London: William Lee.

Bolzoni, Lina 2001. *The Gallery of Memory. Literary and Iconographic Models in the Age of the Printing Press.* Toronto: University of Toronto Press.

Boström, Hans-Olof 2001. *Det underbara skåpet. Philipp Hainhofer och Gustav II Adolfs konstskåp.* Uppsala: Uppsala University Library.

Büttner, Frank, Markus Friedrich & Helmut Zedelmaier (eds.) 2003. *Sammeln, Ordnen, Veranschaulichen. Zur Wissenskompilatorik in der Frühen Neuzeit.* Münster: LIT.

Camillo Delminio, Giulio 1970. "L'idea del theatro." In Lu Beery Wenneker. "An Examination of *L'idea del Theatro* of Giulio Camillo, Including an Annotated Translation, with Special Attention to his Influence on Emblem Literature

158   and Iconography." Ph.D thesis. University of
        Pittsburgh, 187–399.

Carruthers, Mary J. 1998. *The Craft of Thought.
    Meditation, Rhetoric, and the Making of Images,
    400–1200.* Cambridge: Cambridge University
    Press.

Collins, Peter 1965/1967. *Changing Ideals in Modern
    Architecture 1750–1950.* Montreal: McGill
    University Press.

Esposito, Elena 2002. *Soziales Vergessen. Formen
    und Medien des Gedächtnisses der Gesellschaft.*
    Frankfurt am Main: Suhrkamp.

Felfe, Robert & Kirsten Wagner 2010.
    *Museum, Bibliothek, Stadtraum: Räumliche
    Wissensordnungen 1600–1900.* Berlin: LIT.

Halbwachs, Maurice 1925. *Les Cadres sociaux de la
    mémoire.* Paris: Librairie Felix Alcan.

Halbwachs, Maurice 1941. *La Topographie légendaire
    des évangiles en Terre sainte. Étude de mémoire
    collective.* Paris: PUF.

Halbwachs, Maurice 1947. "Mémoire et société."
    L'Année sociologique, 3rd ser., 1940–1948, 1,
    11–177.

Losman, Arne 1982. "Minnets teater." In Göran Alm,
    Ulla Landergren & Hans Lepp (eds.). *En värld i
    miniatyr.* Stockholm: Kungl husgerådskammaren,
    5–12.

Losman, Arne 1994. "Skoklosters slott – en
    minnesteater." *Nordisk museologi,* 2, 47–52.

Major, Johann Daniel 1670/1683. *See-Farth nach der
    neuen Welt, ohne Schiff- und Segel.* Hamburg:
    George Wolffen.

Markus, Thomas A. 1993. *Buildings and Power.
    Freedom and Control in the Origin of Modern
    Building Types.* London: Routledge.

Minges, Klaus 1998. *Das Sammlungswesen der
    frühen Neuzeit. Kriterien der Ordnung und
    Spezialisierung.* Münster: LIT.

Mullaney, Steven 1983. "Strange things, gross terms,
    curious customs. The rehearsal of cultures in the
    late renaissance." *Representations,* 3, 40–67.

Nielsen, Arno Victor, Annesofie Becker & Willie

Flindt (eds.) 1993. *Museum Europa. En udstilling
    om det europæiske museum fra renæssansen til vor
    tid.* Copenhagen: Nationalmuseet.

Ophir, Adi & Steven Shapin 1991. "The place of
    knowledge. A methodological survey." *Science in
    Context,* 4:1, 3–22.

Richter, Gottfried 1936. "Das anatomische Theater."
    Dr.-Ing. thesis. Sächsische Technische Hochschule
    zu Dresden.

Rudbe[c]k, Ol[o]f/Rudbeckius, Olaus 1679–1702.
    Atland Eller Manheim.../Atlantica sive Manheim...
    4+1 vols. Ubsalæ: Henricus Curio.

Schenkel, Thomas Lambert 1610. *Gazophylacium Artis
    Memoriae.* Strasbourg: Antonius Bertramus.

Segelken, Barbara 2010. *Bilder des Staates. Kammer,
    Kasten und Tafel als Visualisierungen staatlicher
    Zusammenhänge.* Berlin: Akademie.

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