THE MUSEUM BEYOND THE NATION

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HISTORISKA
MUSEET

Cover illustrations

Front: flag images by Fredrik Svanberg based on material from Svensk uppslagsbok (1948), Neues museum in Berlin (for detailed informaton see article by Karlholm), little figure from the shop of the National Museum of the American Indian (©Herman Lebovics), march on Washington for Jobs and Freedom button (©Kylie Message), part of frontispiece of Neickel's *Museographi* of 1727 (for detailed informaton see article by Ekman), flower picture for a poster for the exhibition *Mary – The Dream Woman* 2008 (©National Historical Museum). Back: The Edvard Munch Hall of the National gallery in Oslo (©Mattias Ekman).

English revised by Alan Crozier

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The English word *topic* comes from the Greek word for places, *topoi*. While, with Aristotle, *topoi*, or *topics*, has come to mean patterns of arguments, or more generally, matters or subjects, since Greek antiquity, it has also been used in relation to techniques of remembering, where the word refers to architectural places committed to memory (Blum 1969:53f; Sorabji 2006:30). It is with the latter understanding that the present chapter will use topic and topicality.

With the help of these terms it becomes possible to consider the architectural ordering of collections in museums as a vestige of a tradition that traces its origins in the mnemonic techniques known as the *art of memory*. On the basis of a conjecture about the use of the spaces for institutional remembering in Norway's National Gallery, and an excursion to some of the prototypical art and curiosity cabinets in the Renaissance, which make use of topical mnemonics, it will be argued that museum buildings give rise to corresponding spatial constructs in the minds of their users, constructs that are employed to organise, locate, and remember artefacts, collections, and their classifications. By analogy with the classical art of memory, and with reference to Aleida and Jan Assmann's (Assmann 1995:129) concept of *cultural memory* (*das kulturelle Gedächtnis*), I will suggest regarding the mnemonic use of spatial ordering in museums as an *art of cultural memory*.

SPATIAL FRAMEWORKS OF ART

In 2010 I conducted an interview with Nils Messel, senior curator at the National Gallery in Oslo, one of the institutions of Norway's National Museum. The interview took place in his office, across the street from the gallery. When planning exhibitions, Messel explained to me, the gallery spaces were present in his mind, in clear detail, even if he did not work in the actual building on a daily basis. Messel had been employed at the institution for decades and knew

the institution and its building thoroughly. He introduced me to the halls of the museum as if we were taking a walk in an imaginary building, rambling through the central narratives of the institution, all of them firmly attached to one or several rooms (Messel 2010). For this context I will regard Messel's account as indicative of general curatorial practice in nineteenth-century art museums.

Messel linked the process of the gallery's creation to the nation-building era of the nineteenth century, when the Norwegian administration worked towards secession from the union with Sweden and strove for recognition as a cultured European nation. The room of the society *Friends of the National Gallery* exhibits the donation of a collection of French impressionist paintings that mirrors the boom times of the First World War, when enormous fortunes made their way to Norway. Now adorning the café, the painted and gilded stucco walls of the French Hall, originally accompanied by a collection of plaster casts, were a gift from France after World War I that the director could not refuse. The Edvard Munch Hall – a courtyard that was roofed over in 1937 – was the first in the gallery to display one individual artist (fig. 1). As a final example, Messel linked the main staircase to the 1942 exhibition that displayed Nazi-endorsed, and so-called degenerate art, by showing the reproduction of the enormous painting that was mounted over the steps, presenting the ideals of a Nazi Norway.

The halls of the National Gallery, conjured up at will in Messel's mind, are an example of what sociologist Maurice Halbwachs (1994:95ff) calls *cadre spatial de la mémoire*, or spatial framework of memory. As sets of more or less stable representations, the spatial framework – in addition to the social and temporal framework – allows us to maintain, organise and make meaning of memories. The environments we live in form durable frames of reference from which we construct the spatial framework we need to orientate ourselves and remember things. We commit new places to memory by means of unique and vivid impressions, and with repeated exposure we replace the detailed images with schematic representations: architectural, emotional, and societal landmarks stand out against an indeterminate background as points of reference (Halbwachs 1994:133). With reference to the term *cognitive map*, approximately corresponding to the spatial framework of memory, the geographer Juval Portugali has argued that:

> the internal representation of the external environment is not just a set of objects, their pattern and spatial relations, but their interactive, mediated and mediating nature … the individual enters an environment which is already self-organised and enslaved by a set of order parameters, and constructing a cognitive map implies the internalisation of the ordering principles of the environment (Portugali 1996:19).

Fig. 1. The Edvard Munch Hall in 2009. Photograph by author.

I would argue that there are similarities between the spatial framework (cognitive map) and the trained use of places, the topicality, of the art of memory. Both employ internal representations of the external environment as the organising principle for memory, the former intuitively, the latter with systematic discipline. Both take advantage of mind's disposition for committing space to memory. The empirical insight of the art of memory has been confirmed by contemporary psychological studies in spatial cognition, and it is acknowledged as a pre-scientific forerunner to such studies (Tversky 2000:365). The guidelines for the art of memory state that the building one should choose to memorise, from which to create the series of imaginary places, should be ordered and conspicuous and not contain too many details. Similarly, Halbwachs has observed that the mind seems to be preconfigured to create spatial frameworks that are more schematic and abstract than their real counterparts. Frances Yates (2001:23), an influential scholar of the art of memory, points out that:

> the same set of loci can be used again and again for remembering different material … the loci remain in the memory and can be used again by placing another set of images for another set of material.

Comparably, Halbwachs has argued that the spatial framework is a stable construct of the mind that allows the accumulative superposing of several sets of memories onto it.

In the museum, the architect conceives of the spatial layout, the curator organises the art in the rooms according to taxonomies, and visitors and professionals perceive and comprehend the spatial and semantic ordering principles. Further, I would suggest that the order of the museum, internalised in memory as a spatial framework, supports the conception of the exhibited art. Messel explained:

> I hung [the art in] the Munch Hall as it is now. And it was not like that in my youth [laughter]. I have wanted to show the Munch period of the [18]90s that I find the most important. I have removed pictures from the [18]80s. I have removed later pictures to avoid any nostalgia. I believe that those [from the 1890s] are the most important and the best pictures. The Munch Hall has been changed, from [director] Thiis, who mounted it in 1937 and through Willoch, who was the next director.

Messel knows precisely which works of art are displayed and which were exhibited in previous hangs. By means of the spatial framework he can keep the artworks in order and administer their relation to other works and secondary material: Munch paintings in other collections, photographs of earlier hangs, discourses, chronologies, and so on.

REMEMBERING IN THE MUSEUM – AN ART OF CULTURAL MEMORY

Over time, a museum professional like Messel will build an in-depth understanding of the institution, learning about the changes of the gallery and its collection: acquisitions, successions of hangs, and exhibitions. The natural process of learning the locations of the artworks, their provenance and place in the collection can resemble the process of organising symbolic images in places in the art of memory. The association of art periods or genres with specific halls corresponds to the act of the ancient rhetorician, who placed the contents of a speech in the rooms of a house:

> The first thought is placed, as it were, in the forecourt; the second, let us say, in the living-room; the remainder are placed in due order all round the impluvium [light-well of the atrium] and entrusted not merely to bedrooms and parlours, but even to the care of statues and the like (Quintilian:XI, ii, 20).

In the art of memory, arguments can be recalled by walking through the memory building and watching, with a mental gaze, the symbolic images placed

there. The way in which Messel took me on a mental walk around the museum, speaking of its history freely from memory, is very similar to the walk of the rhetorician.

However, the work of a curator or art historian can take on a different quality. They may also use the spaces to access knowledge that they do not keep in mind, things they do not know or only know little of. The architecture becomes the associative and navigational device that brings to mind other artworks or secondary documentation, which can be consulted for complementary and more precise information: paintings, drawings, graphic work, sculpture, installations, sketches, notes, manuscripts, books, photographs, models, film, video, etc. These may also be assigned to material or immaterial markers that relate them to conceptual and classificatory aggregates: collections, temporary exhibitions, permanent hangs, periods, genres, artists' oeuvres, or discourses of nationalism, zeitgeist, ethics, etc. The artefacts and aggregates may form stable relationships with the spaces of the museum, like the aforementioned Munch collection and canon in the Munch Hall, mirroring a conceptual order in the order of the built environment.

The domain of artefacts and their classificatory aggregates corresponds to what Aleida and Jan Assmann (Assmann 1995:129ff) call *cultural memory*. Assmann uses the term *memory* also when referring to artefacts, with the awareness that a painting, a book, or a building, in itself, does not constitute a memory faculty in the same way as the mind of a human being. But it is not a metaphor, they maintain; instead, it should be understood as a metonym (Assmann 2008:111). The artefact comes to stand for the human cognitive act that is engaged with it. Reading, perceiving, or in other ways comprehending cultural artefacts semantically and symbolically, as messages from different persons, times, or places, is comparable to an act of remembrance. If Messel's mental walk during which he retrieves art objects and discourses from memory can be described as an intuitive mnemonic akin to the art of memory, the technique of managing artefacts by means of the museum architecture can be understood as a topical mnemonic engaging cognitively with a shared cultural memory of the objects. In order to distinguish the latter from the classical art of memory I suggest calling such a mnemonic an *art of cultural memory*. Before introducing a few early modern examples of topical ordering of art and curiosity cabinets, indicating a cultural practice that may have left traces in the spatial organisation of the nineteenth-century museum, it is useful to recapitulate the rules for places and images in the classical art of memory. It will help to identify the transformation of the classical art into an art of cultural memory.

TOPICALITY IN THE ART OF MEMORY

> But just as in everything else the merit of natural excellence often rivals acquired learning, and art, in its turn, reinforces and develops the natural advantages, so does it happen in this instance (Ad Herennium:III, xvi, 28).

Based on observations of the disposition of the human mind to remember places, the Greek and Roman art of memory was the result of a systematic investigation into the visuospatial structuring of memory. According to the myth, Simonides of Ceos (*c.* 556–468 BC) invented the art of memory after a banquet that ended in tragedy as the roof fell in and crushed all the guests but himself (Cicero II, lxxxvi, 351–354). Simonides was able to tell the unidentifiable, mutilated bodies apart by reconstructing in memory the order of the guests at the table. The real inventor of the art, however, according to Herwig Blum's meticulous study (1969:90), is in all probability the rhetorician and poet Theodectes (*c.* 377–336 BC), who is believed to have invented it around 360–354 BC. Visuospatial mnemotechnics were disseminated as a technique for memorising longer and detailed structures of thought in unbound form in rhetoric and dialectic (Hajdu 1967:15f; Sorabji 2006:27).

Greek and Asian rhetoricians spread the mnemonic throughout the classical world in the last pre-Christian centuries, and young Romans studying abroad brought it back to Rome. Soon a wealth of literature on the subject was to be found, and those with a trained memory enjoyed great respect.

No Greek scripts remain, but three Roman texts have been handed down to allow us to picture how the art was practiced in antiquity: the anonymously authored *Rhetorica Ad Herennium*, Cicero's *De Oratore*, and Quintilian's *Insitutio Oratoria*. Herwig Blum (1969:3–37) has made a systematic review of these texts' instructions on how to form mental places (*loci*) and images (*imagines*), on which I will rely in my description below.

First we should find a large building, or a series of places, to be memorised. It can be real spaces or spaces constructed in the imagination; the former are preferred since they can be observed visually in detail, and will thus be easier to commit to memory. The process is guided by eight rules:

The first rule states that the building should be large and have many subsidiary places in it, or that the series of places should be so great that there is enough space for us to place the many things that we want to remember. The second rule recommends places that are simple, conspicuous, and easy to grasp. Rule three endorses places that are defined and delineated, possible to observe as separate places in a linked sequence, 'like dancers hand in hand' (Quintilian:XI, ii, 20).

Fourthly, places should be idiosyncratic. A difference in character from other places should prevent the confusion of different places. This rule does not follow from the previous one: for example, intercolumnar spaces in a row of columns should not be chosen, even if the places are clear and defined from each other, because of the risk of mixing them up. Places should be rehearsed, the order mastered, so that one can travel freely back and forth in the series. In order to keep track in a larger system – in a society, Blum reminds us, where most vernacular buildings appeared confusingly similar – one should place a golden hand at every fifth place, and at every tenth, a friend called Decimus.

The fifth rule states that places should be of moderate size, 'for when excessively large they render the images vague' (*Ad Herennium*:III, xix; 31), or we risk not finding them again. Likewise, if places are too small it seems that the images do not stick to them. Sixth, there should be a reasonable space in between the places, about thirty feet, or ten meters. As in reality, memorised images need to be watched at a good distance, not from too far or too close. There should also be some space to allow us to see the next place before coming to it.

Rule seven tells us that places should be moderately lit. Too bright places may make images glare, and in too dark places we risk not finding the images. The eighth and final rule advocates the use of abandoned places, since places trafficked by people will disturb the images. Empty places will make images stand out more clearly to the mind. While the first rule promotes the capacity of the system, rules two to six promote the clarity and memorability of the places, and four to eight of the images.

Ad Herennium (III, xvi, 29) suggests that we find an environment that includes a series of smaller places, for example the exterior of buildings, or their parts: an intercolumnar space, a recess, or an arch. Quintilian (XI, ii, 20–21) recommends using a larger private house, divided into several rooms. The forecourt can be the first place, the atrium the second, and more can be found in bedrooms, living rooms, but also by statues or similar decorative elements. By choosing a private house, Blum points out, it will not be possible to follow rule six with a thirty-foot distance between places. Distances will be reduced to half or less, leading to a miniaturisation of the art.

As an alternative to a house, Quintilian (XI, ii, 21) suggests that we use 'public buildings, a long journey, the ramparts of a city, or even pictures'. While the first three examples have a larger scale that allows us to adhere to the rule of moderate size, the fourth also operates at a miniaturised scale. Blum shows that, with reference to Vitruvius's systematic writings on painting and to the decorated rooms found in Pompeii, it would also have been

possible to use pictures as mnemonic places: depictions of architecture and architectural detail, landscapes, mythological scenes set in landscapes, and theatre stages could take their role. Beneficial for the technique, Roman wall paintings were not separated by frames but ordered on the walls in horizontal and vertical fields, providing for the mnemonist a series of ordered places to memorise.

The images we position in our mental places, images of people or of things, should be imagined as if they were actually standing there: in three dimensions, vivid, animated, and of real size. The choice of images should be made according to one's personal disposition, and images should be rehearsed until stable, to avoid confusing them. Singular things are depicted with that which is to be remembered: a lion or a horse; or they can show something that stands for a greater concept: an anchor for navigation, or a weapon for warfare. Abstract notions are denoted by well-known figures: Achilles indicates bravery and Hephaistos metalwork, and names can be remembered by using the image of a friend who carries the same name, an object whose name is etymologically or phonetically reminiscent of the name. Complexes of things can be imagined by image-scenes assembled of several parts:

> the prosecutor has said that the defendant killed a man by poison, has charged that the motive for the crime was an inheritance, and declared that there are many witnesses and accessories to this act. If in order to facilitate our defence we wish to remember this first point, we shall in our first background [place] form an image of the whole matter. We shall picture the man in question as lying ill in bed, if we know his person. If we do not know him, we shall yet take some one to be our invalid, but not a man of the lowest class, so that he may come to mind at once. And we shall place the defendant at the bedside, holding in his right hand a cup, and in his left tablets, and on the fourth finger a ram's testicles. In this way we can record the man who was poisoned, the inheritance, and the witnesses (Ad Herennium:III, xx, 33).

Further, images should be idiosyncratic and conspicuous. Like places, images should be differentiated from one another, and stand out:

> When we see in everyday life things that are petty, ordinary, and banal, we generally fail to remember them, because the mind is not being stirred by anything novel or marvellous. But if we see or hear something exceptionally base, dishonourable, extraordinary, great, unbelievable, or laughable, that we are likely to remember for a long time (Ad Herennium:III, xxi, 35).

These are, in essence, the rules for places and images in the art of memory in antiquity.

ENCYCLOPAEDIC ASPIRATIONS IN THE RENAISSANCE

Following the fall of the Western Roman Empire, the art of memory met with centuries of disregard. The twelfth century saw a new interest in the art, and the thirteenth century brought with it a revival of the topical system, largely the result of Thomas Aquinas's efforts (Hajdu 1967:65ff). During the Renaissance, due to the attention to classical antiquity, mnemotechnics were widely disseminated. Peter of Ravenna became famous all over Europe at the end of fifteenth century for his feats in memorising. He claimed to have used more than one hundred thousand memory places with which he could recite:

> twenty thousand passages of canon and civil law and … seven thousand passages of the holy scriptures, a thousand verses of Ovid … two hundred sentences of Cicero, three hundred of the philosophers, and the greater part of the work of Valerius Maximus (Peter of Ravenna cited in Rossi 2000:21).

The laymen of humanism – physicians, lawyers, professors – embraced the art of memory for use in eloquence and free speech, and Catholic and Protestant teaching was based on the schooling in the art (Hajdu 1967:122). A profession solely dedicated to the art of memory appeared, and instructors travelled all over Europe and taught it publicly. An abundance of memory treatises were published in the sixteenth and seventeenth centuries, most of which were based on *Ad Herennian* rules (Yates 2001:114).

The renewed popularity of the art of memory coincided with the period of the *Wunderkammern* – the private cabinets that displayed collections of art, curiosities, and rarities – which stretched from the mid-sixteenth to the mid-seventeenth, or perhaps mid-eighteenth, century (Mullaney 1983:40; Bredekamp 1995:28). In relation to the revival of the art of memory and the appearance of such cabinets, Paula Findlen (2000:162) argues as follows:

> Knowing how to retain knowledge and acquiring the objects that represented knowledge were shared endeavours. Both attempted to visualise culture, whether through a set of symbols in an imaginary theater that represented the encyclopedic potential of the human mind or through the arrangement of key artefacts in a room.

Lina Bolzoni (1994:139f) has looked at how the two developments reciprocally influenced each other. She emphasises that the prevailing spatial models and metaphors for memory – memory as a treasury, a palace, or an archive – were taken literally in this period. My argument is different: the spatial models did not only take the form of materialised metaphors, but more importantly, their role was to act as spatial constructs of the mind. They were made physical for

the purpose of supporting – by means of vision, motor activity, and cognition – the structuring and ordering of specimens and artefacts in universal and encyclopaedic thought systems.

The psychologists Piaget and Inhelder (1997:449) have come to the conclusion that, when creating spatial representations of an external environment, the human mind does not extract properties of space through perception, but rather performs an action on them, enriching them with the mind's schemata. Furthermore:

> It will therefore be seen that spatial concepts are internalised actions and not merely mental images of external things or events – or even images of the results of actions. Spatial concepts can only effectively predict these results by becoming active themselves, by operating on physical objects, and not simply by evoking memory images of them. To arrange objects mentally is not merely to imagine a series of things already set in order, nor even to imagine the action of arranging them. It means arranging the series, just as positively and actively as if the action were physical, but performing the action internally on symbolic objects (Piaget & Inhelder 1997:454).

Arranging objects mentally is also what the art of memory does when it employs an inner spatial order for symbolic objects. This system of knowledge is a great deal lighter to carry than built edifices, and it can be moved through in a matter of milliseconds.

Portugali (1996:11) has argued similarly in relation to spatial representations in memory:

> the cognitive system in general, and the one associated with cognitive maps in particular, extend beyond the individual's mind/brain into the external environment. Accordingly, the cognitive system is perceived as composed of elements in the mind/brain, internally representing the external environment, and elements in the environment, externally representing the mind.

Spaces recreated in the mind and perceived physical spaces naturally overlap. This, I argue, is precisely what they do in conceptions of prototypical Wunderkammern. Techniques of topical remembering are of great value for conceiving of, cognising, and navigating complex knowledge systems. In the new arrangements of collections during the Renaissance, the exhibition spaces were constructed according to preconceived conceptual classifications. They were not found spaces, more or less well suited to their purpose, as in the classical art of memory. The spaces of the Wunderkammer were tailor-made for the purpose of being memorised as mnemonic places. An ideal architecture of mnemonic places was based on the conceptual system of the encyclopaedia. The *Ad Herennian* rules changed from rules for how to choose places into rules for how to create them.

THE ORDERING OF THE WORLD

During the Renaissance, a strand of the art of memory developed under the influence of new philosophical currents. Based on the *Ad Herennium*, with additions from Neoplatonism, Hermeticism, and the Cabala, it was transformed into an occult undertaking that placed it at the very centre of European thought, alongside its popular traditional form. The Italian scholar Giulio Camillo (1480–1544) was the first person who elaborated the art of memory according to this philosophy and made it commonly known. I will mainly base the description of Camillo and his mnemotechnical *Theatre* on Yates's account (Yates 2001:135–174). Camillo's project can only be sketched out in this context, and I refer to Yates for more elaborate introductions.

According to Yates, Camillo was a person of huge fame who was discussed intensively at the courts and universities of Europe. To those who would share his interest in the occult, the Theatre would be the object of enormous fascination. To his critics he would appear as a charlatan. To Camillo, the supposed writings of the ancient Egyptian sage Hermes Trismegistus – *Corpus Hermeticum* and the associated *Asclepius* – were considered as important as the writings of Plato. The thought edifice encompassed the idea of a divine human mind, drawn from the very substance of God. It had the ability to recall the entire universe by looking down at it from a celestial position. In the Memory Theatre, similarly, the microcosm of man's intellect could fully remember and understand the macrocosm of the universe by visually accessing symbolic pictures and texts. The principle of representing macrocosm in the microcosm of one room became the fundamental idea underlying the organisation of collections in Wunderkammern (Grote 1994:11).

The Theatre, an invention that Bolzoni (2001:xvi) calls 'the incarnation of the myths of the century', was a mnemotechnical device that made physical and visible a great philosophical edifice, which described the order of the universe. It was essentially based on the rules of *Ad Herennium*, but while in the classical art of memory, the series of places were a spatial construct memorised through training in an existing environment, and subsequently accessed in memory, the mnemonic places in Camillo's art of memory consisted of physical locations, visible to the eye, arranged in the architecture of a wooden building that was erected at the French court. The perceived places would strengthen and trigger corresponding places in the order of the mnemonist's mind. Symbolic pictures adorned the Theatre's inner walls, and texts, or captions, served as headings of the symbolic categories, replacing the mental imagery of *Ad Herennium* as cues for the system to be remembered. This is the first important change to the memory technique.

Similar to the *panopticon*, invented by Jeremy Bentham two and a half centuries later as a disciplinary measure, the Theatre placed an all-seeing spectator on the stage, at the centre of his semicircular Vitruvianesque theatre. The subject of his gaze was a system of symbols representing, in the microcosm of the Theatre and man, all aspects of the universe (fig. 2). The system was complex, refined, and detailed, supposed to uphold for the user the structure of a permanent edifice of the mind:

> 'Now if ancient orators,' [Camillo] says, 'wishing to place from day to day the parts of the speech which they had to recite, confided them to frail places as frail things, it is right that we, wishing to store up eternally the eternal nature of all things which can be expressed in speech … should assign them to eternal places' (Camillo cited in Yates 2001:52).

The Theatre was of an architectural scale big enough to cater for two people on stage, and had large enough passages to give the user access to coffers distributed around the theatre. Seven grades rose in front of the eyes of the spectator, each identified by a general symbol. From seven pillars on the stage, representing the pillars of Solomon's house of wisdom in the Cabala, seven gangways spread out, tracing the expansion of the universe from its creation. The first grade symbolised the seven planetary gods, the second the elements of creation, the third the mixture of the elements, the fourth the creation of man's mind and soul in the image of God, the fifth the union of man's soul and body, the sixth his natural abilities, and finally, the seventh and highest grade of the Theatre, man's creations: the arts, science, religion, and law. It was the passage from God to man, from nature to artifice. On every grade there was a gate or door. At the intersection of each of the seven gangways, the gate acted as a mnemonic place and was decorated with up to seven symbolic pictures. Altogether it made up a spatial and encyclopaedic system of hundreds of symbolic images.

The symmetric semicircular arrangement broke with the *Ad Herennian* art. Places were not idiosyncratic, and could easily be confused in their similarity. Bernheimer (1956:230) argues that Camillo compensated 'by rendering his images very diverse … to be easily retained', according to the rules of art of memory. I would suggest that he also compensated by creating a strict and logical system in which each grade and each gangway had distinct symbolic identities, easy to learn by heart, and the symbolism of the forty-nine intersections could be safeguarded by the reference to the entire system. While we do not know the exact size of the Theatre, it can be assumed that it broke the rule stating that there would be thirty feet between the places, since that would make the Theatre larger than a normal Vitruvian theatre. Unlike the classical

Fig. 2. Yates's schematic recon-
struction of Camillo's Theatre
with the texts describing the
original symbols. From *The Art
of Memory* by Frances Yates,
published by Pimlico. Reprinted
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art of memory, in which the mnemonist would move mentally along a series of places, in the Theatre he is fixed at the centre. From there he can capture the entire edifice with one gaze. He could, however, step out of his all-seeing position and contemplate a symbol in detail: beneath each gate is a coffer that contains collections of papers with written speeches on the works of Cicero. These expand on the subjects associated with the images. This is the second major change from the classical art of memory: not only is the Theatre a device for accessing a system of knowledge in one's mind, but it also enables access to an archive of knowledge which has been externalised from the mind into the realm of artefacts. Camillo's inclusion of written documents in an art of memory was the first step towards the ordering of artefacts in spatial knowledge systems that would characterise Wunderkammern and museums. A strand of the art of memory had developed into an art of cultural memory.

THE REPRESENTATION OF THE MACROCOSM IN THE MICROCOSM

Camillo's Theatre is a conceptual system that could be considered one of the prototypical models for the museum. The art of memory had been changed radically to become a useful devise for the collectors. During the sixteenth and seventeenth centuries Wunderkammern appeared all over Europe. Managed and visited by scholars and nobles, the collections could include books and manuscripts, paintings, sculptures, scientific instruments, weapons, medals, coins, jewellery, gems, stones, stuffed animals, dried plants, shells, and different kinds of exotic and rare objects, often placed in the same cabinet. Their shared objective was to make universal nature private (Hooper-Greenhill 2001:78). The cabinets became essential in the search for knowledge among the learned and wealthy, lending their creators great prestige.

The cabinet was a miniature system of the world's objects; the mind of the collector was the miniature thought-structure that outlined the universe. The logic stemmed from an epistemic change during the Renaissance (Hooper-Greenhill 2001:84). Man had come to regard himself as having a divine intellect, capable of divine thought, and the means of structuring the ambition of total knowledge lay in the occult art of memory. The key to its application was Camillo's Theatre. The structuring of objects into classes helped in ordering a worldview as a theoretical and spatial construct. The rules of the art of memory helped to construct a system that would facilitate grasping and remembering it, or indeed make it possible at all. In the emphasis on the 'alien, anomalous, dissimilar, barbarous, gross, or rude' in the cabinet's 'spectacle of strangeness'

(Mullaney 1983:43), its users would find that objects stuck better to memory, just as in the rules of the classical art of memory, which dictated that images should be 'exceptionally base, dishonourable, extraordinary, great, unbelievable, or laughable'.

A DOMINION IN MINIATURE

In 1570, in the Palazzo Vecchio, Vincenzo Borghini (1515–1580) devised, and had erected, a small room for Francesco I (fig. 3; Grote 1994:224ff). The *stanzino* was an attempt to bring into one single room – 8.4 by 3.3 metres and with a height of 5.6 metres – all that was possible to know and worth knowing, in the form of *natura* – invented by God, and *artificialia* – invented by man. The walls and the vaulted ceiling were divided into panels with paintings and niches with sculptures, depicting the four elements of nature – fire, water, earth, and air – in allegorical subjects. The paintings dressed cupboards that contained a selection of Francesco's most rare and precious objects – jewellery, medals, cut stones, containers, and inventions. The paintings and sculptures symbolically represented the objects in the cupboards, acting as an inventory for them, while they simultaneously represented a holistic view of a universal order (Bolzoni 1994:142f). At once material and immaterial, perceptual and conceptual, the room was a memory system in which the panels and the niches were mnemonic places, and the paintings and sculptures mnemonic images. A world that the duke claimed as his dominion was accessible in one sweeping gaze for him at the centre (Hooper-Greenhill 2001:106). Like the coffers of Camillo's Theatre, which contained written speeches, the stanzino kept specimens and artefacts in the cupboards, ready to be consulted for further study. Normally kept closed, the panels would conceal the objects behind, but indicate their positions within the cosmic order.

The organisation of the memory edifice is reminiscent of Blum's description of how the classical art of memory may have used wall paintings as places and images, as discussed earlier (1969:7ff). The stanzino, however, is more complex, weaving a web of association and similitude in an art of memory that has transcended the boundaries and limitations of the human mind, projecting itself also onto the furnishing of a room and onto paintings and objects. It echoes Portugali's description of the cognitive apparatus to naturally extend 'beyond the individual's mind/brain into the external environment, internally representing the external environment, and elements in the environment, externally representing the mind.' It is a scheme that recaptures Camillo's Theatre, and is the second example of an art of cultural memory. Conceived in mind

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Fig. 3. Studiolo of Francesco I. Florence, Palazzo Vecchio. Devised and erected by Borghini with paintings by Giorgio Vasari (1511-1574). The lower row of paintings conceal cupboards for objects. ©2012. Photo Scala, Florence.

as a set of places and images, the system of the world is externalised into the room's order of paintings and sculptures to act as a prosthesis for the mind, facilitating easier cognition and memorisation.

TOPICAL ORDERING AND MUSEOLOGY

The stanzino is by no means characteristic of cabinets of the period. Sharing the same theoretical references, the Wunderkammer of Duke Albrecht V of Bavaria displayed a radically different design. It was housed in four white-painted galleries, about five metres high and seven metres wide, on the top floor of a building block surrounding an inner yard, and had large windows facing in all directions (fig. 4; Seelig 2008:18). It was at the time the largest building conceived for the display of a collection. From 1559, the Belgian physician Samuel Quiccheberg (1529–1567) was responsible for classifying and ordering the duke's collection (Roth & Quiccheberg 2000:7). About the same time, Quiccheberg started working on a treatise on the challenges of classifying and organising a collection. It was published in 1565 under the descriptive title:

> Inscriptions or captions of a large theatre that embraces the single subjects and most important images of all things, so much that it can rightfully be called a reference book of artistic and extraordinary objects, and of every treasure and precious furnishing, structure, and painting, all of which have been gathered together in the theatre in such a way that by continuously seeing them and handling them, one can quickly obtain a singular knowledge and wonderful experience of things (English translation of the Latin title in Bolzoni 2001:236).

Quiccheberg's theoretical model for the Wunderkammer, or theatre, influenced and was influenced by his work at the court. With no museum-theoretical predecessors, *Inscriptions* is regarded as the first museological treatise in Germany, and became an early handbook for collectors and museums (Roth & Quiccheberg 2000:1).

In Germany in the sixteenth century, the *Ad Herennian* art of memory was widely disseminated through general treatises on rhetoric and specialised works on memory (Rossi 2000:66). Giulio Camillo's Theatre was well known in learned circles through the descriptions of those who had seen it at the French court, and later through a treatise on the Theatre called *L'Idea del Theatro*, published in 1550. Tied to the discourse of the day, for Quiccheberg, the art of memory in general, and Camillo's Theatre in particular, served as important references, although he considered Camillo's occult system too complicated for the classification of specimen and artefacts (Roth & Quiccheberg
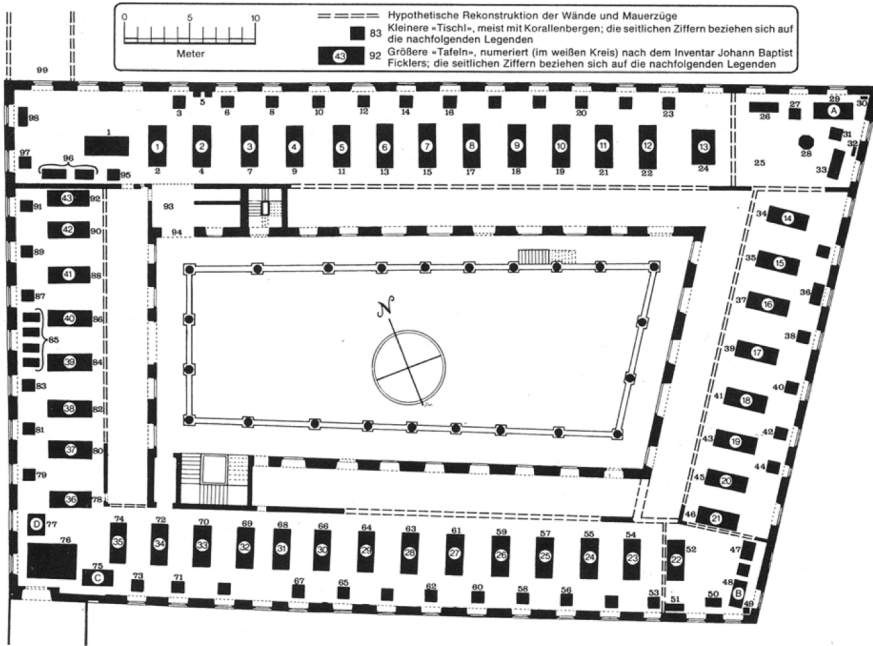
Fig. 4. Reconstruction by Lorenz Seelig of Albrecht V's Kunstkammer in 1598.
Reprinted with kind permission from Lorenz Seelig (©).

2000:26f). Despite this he made use of Camillo's order of the seven planets for the categories of his theatre. Quiccheberg had also travelled to Italy and seen several of the important collections in Bologna, Padua and Rome. Further, Lorenz Seelig has stressed the intimate relations between the Wittelsbacher court in Munich and the Medici court in Florence in the 1560s and 1570s and demonstrated the reciprocal influence of the arrangement of the courtly collections as well as the similarities of the systems of display (Seelig 2008:81). The construct of Quiccheberg was thus created in the midst of an ongoing discourse on theoretical as well as architectural models for the organisation of artefacts and knowledge.

With the term *theatre* Quiccheberg refers to Camillo's encyclopaedic model, but he also understands it literally as the dramaturgical action of putting objects on display on a stage (Roth & Quiccheberg 2000:261). In his ideal theatre, as well as in the Munich Kunstkammer, the floor is the stage on which tables (*Tafeln*) with specimens and artefacts are arranged as symbolic subgroups of a universal system. Different from Camillo's mnemonist, positioned at the centre of the semicircular theatre, Quiccheberg presupposes

a spectator to move along the four well-lit galleries, picking with his gaze, as he walks, the mnemonic images of objects and pictures – just as in the ancient art of memory. Unlike Camillo's Theatre and Borghini's stanzino, the supposed user of Quiccheberg's theatre could not acquire an overview of the whole theatre at any one position but the strict system of tables allowed for an overview that gave immediate visual access to the overall categories of each gallery (Seelig 2008:27). The layout would break one of the classical rules: the tables along the itinerary, taking the role of mnemonic places, may have been easily mistaken for each other, lined up as they were in each gallery. They were also painted ash-grey to form an optically neutral background against which the objects were to stand out (Seelig 2008:24). The underlying topical organisation of the collection could only be grasped by walking through the galleries; the total overview was only available in the acquired mental construct of the user, just as in the classical art of memory: the first section covered the realm of God, the ruler and his genealogy, as well as maps and drawings of his lands, cities, and buildings (Bredekamp 1995:28ff). The second section was devoted to the arts and crafts; the third presented a systematic view of nature's three domains: animal, vegetable, and mineral. The fourth section showed instruments, devices, and weapons, and the fifth section oil paintings, watercolours, copper engravings, and tapestries. The objects were placed on tables, against or on the walls, and were ordered by means of Hermetic inscriptions or captions similar to those in Camillo's Theatre. The main collection would contain carefully selected objects representing, in the microcosm of the theatre, a macrocosmic world system. In addition to a number of facilities such as reading chambers and workshops, the theatre also included an archive, called *promptuarium*, and a library, which served to supplement the specimens and artefacts of the collection with information about objects that were present physically. The library was ordered according to the same sections as the collection (Roth & Quiccheberg 2000:251ff). Every tenth book was marked on the spine with a colour, making it visible at a distance. This is a rule we recognise from the classical art of memory that serves to keep track of the position of an object in the series.

Quiccheberg's theatre positioned the conception of the early museum somewhere in between a concrete organisation of a collection and a memory system, at the same time architectural and epistemological, practical and theoretical. The classification on which it was based was an edifice of the divine human mind that would remember all aspects of the world. Like Camillo's Theatre and Borghini's stanzino, the epistemological construct would take on physical form through the spatial disposition of the objects, functioning as an externalised set of mnemonic places. Unlike them, Quiccheberg's theatre

system was accessible to more than one user, as he made public through his treatise a model to be applied to the classification of other collections. His edifice is the third example of an art of cultural memory.

MUSEUMS AS MEMORY DEVICES

About a century and a half later, Wunderkammern had become common throughout Europe. The holistic encyclopaedic principles of organising were beginning to be outdated, and specialised and public institutions would soon take their place. The art and curiosities collection in Dresden, founded in 1560, was split up to enter the collections of separate museums in the period between 1721 and 1835 (Menz [1964]:21; Mullaney 1983:41). The British Museum opened to the public in 1759 in Montagu House, bringing together the private collection of Sir Hans Sloane with other purchased collections or donations (Wilson 2002:22). The Royal Danish *Kunstkammer*, a fusion of several collections in the mid-seventeenth century, including the famous *Museum Wormianum*, was split between 1780 and 1825, and its collections ended up in several specialised institutions (Gundestrup 2001:184).

In 1727, a merchant from Hamburg, Caspar Neickel (also Neickelio or Jencquel), published a handbook for amateur collectors called *Museographia Oder Anleitung Zum rechten Begriff und nützlicher Anlegung der Museorum Oder Raritäten-Kammern*. It describes in detail how to plan and furnish cabinets of rarities, and how systematic classifications should be made for the categories of *Naturalia* and *Curiosa Artificialia*. His rules for the edification of museum visitors – educated and uneducated, rich and poor, young and old – give a glimpse of how cabinets at the time were perceived as structures for learning (Neickel & Kanold 1727:454ff). In addition to elementary rules of conduct – having newly washed hands, being well dressed, having good manners, and moderating one's amazement over an object not to ridicule oneself if it were to prove common – there are a number of rules intended for improving the memorisation of the objects and the classification system: One should ask for the origin and classification of the object and write down the variety of memorabilia and curiosities on a compendious writing tablet. If one can draw, one should make sketches, which can be improved later at home, and the colour and size should be noted. The rarer the object, the more time one should spend contemplating it. But one should not spend too long on any one object, and consider desisting from looking at some objects. The number of cupboards and repositories should be observed carefully, including their contents, and 'one must form a concept in the brain of the situation of the whole museum.' At home one should draw the

correct ground plan of the museum, including the disposition of the furnishing. If one has the opportunity one should visit the museum several times, because we learn more the second and third time. If in company with others, after the visit, one should discuss what one has seen because through such a repetition 'that which has been seen will be firmer and better impressed on the memory.' Finally, one should not come to the museum without prior knowledge – this would be like dragging a donkey into it. It is recommended to browse some books on collections, or to see a catalogue of the collection, if there is one.

Neickel also provided general recommendations for the architectural design of a cabinet:

> a chamber [should be] positioned towards the southeast … with a vaulted floor [above], which distributes the daylight well. The walls and the vault are not decorated in any other way than with a white, bright paint. This chamber of rarities, conceived in thought by myself, is about twice the length of the width, and is directed against the bright day, so that also the smallest objects in it can be observed (Neickel & Kanold 1727:421).

He continues to describe the sizes and positions of cupboards and tables, the classification of the objects, and their disposition in the room. As a warning example, Neickel introduces a collector whom he criticises and ridicules for his disorderly and labyrinthine collection of stuffed and live animals (Neickel & Kanold 1727:425). His collection is accommodated in a stable with an earthen floor, made of unplaned and unpainted boards. There are no windows to let in the light, except for a small window above the door, and the live ape one can see in there – which the author is uncertain whether it is a rarity or not – prompts him to call the organisation apish. The stuffed animals are, by the time of Neickel's visit, already half-rotten, and covered with damp and mildew (fig. 5).

With the good and bad examples of how to arrange a collection, the reader should understand what promotes the good cabinet: order, neutral backgrounds for the objects, good lighting conditions, clarity, sequentiality, etc. With the rules for visitors he advocates techniques for improving the memorisation of objects and classifications: attention to the details of the objects, focus on rare objects, attention to the room and collection order, repetition and repeated visits, etc. These directions cover most of the topical principles of the classical art of memory.

By the eighteenth century, the cabinet of art and rarities had become a conventional memory device for learning about the world. It had laid a topical-organisational foundation that the new generation of museums could build on, implementing their new, and specialised, classificatory systems of chronology, art history, and scientific taxonomies. Rules for organising the objects in space

Fig. 5. Frontispiece of Neickel's *Museographi* (Neickel & Kanold 1727).

seemed to adhere to those of Neickel and Quiccheberg, rules that in their turn stemmed from the art of memory. Topical orders characterised museums like the British Museum in London and the Royal Museum (*Kongl. Museum*) in Stockholm, which opened in 1794, in which itineraries leading through the rooms of the museums were offered to the visitors to facilitate their understanding of the ordering of the object categories in different rooms (*The General*

Contents of the British Museum 1762; Touati 1993). In Stockholm it took an ideal route that the visitor could not even take in reality. Schinkel's Altes Museum, built between 1823 and 1830, and the National Museum in Stockholm, constructed between 1850 and 1866, were structured according to principles of art history and theory, with classifications corresponding to the architectural disposition of the floors or rooms in the museums (*Statens Konstsamlingar* 1894:18ff; Wyss 1999:107f). In the 1867 edition of the comprehensive *Encyclopedia of Architecture* (Gwilt & Papworth 1982:1038), the directions for the design of museums included a description that echoes Neickel's *Museographia*, as well as the rules for the mnemonic places in art of memory:

> In the composition of museums decoration must not be exuberant. It must be kept in the interior so far subordinate as not to interfere with the objects to be exhibited, which are the principal feature of the place.

The topical principles of the cabinets and the art of memory seem to have become integrated in the conceptions of the museums of the eighteenth and nineteenth centuries.

Through the conjecture about the practice in the National Gallery in Oslo, and the topical analysis of some prototypical Wunderkammern, I have tried to delineate a memory technique that can be understood as a descendant of the classical art of memory. With the emphasis on the cognitive interaction with, and spatial organisation of, specimens or artefacts, I have made an attempt to distinguish the technique from its classical counterpart with the term art of cultural memory. There is no evidence of conscious connections between Messel's practice and the knowledge systems that were made physical in theatres, cabinets, and museums in early modernity. However, given the disposition of the mind for spatial remembering – capitalised on by the art of memory – and the survival of nineteenth-century museum architecture today – itself developed under influence of earlier practice – it seems plausible to consider Messel's unintentional practice as related to the basic workings of the inventions of Camillo, Borghini, and Quiccheberg, inventions which in their turn profited from the Renaissance revival of the classical art of memory.

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