

Knowledge Organization in the Domain of Art Studies – History, Transition and Conceptual Changes

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ABSTRACT: The article is an analysis of some aspects of knowledge organization in the domain of the arts, especially visual art. The analysis indicates that different socially and historically embedded discourses on art, including pre-paradigmatic studies and scholarly paradigms, pervade knowledge organization in the art institution at three levels, respectively: 1. Art exhibitions, 2. Primary and tertiary document types (printed, audio-visual, and multimedia documents), and 3. Classification systems, bibliographies, and thesauri. The article presents three paradigms in art scholarship (iconographic, stylistic and materialistic) and analyzes in which way, and to what extent, these paradigms are integrated in the taxonomies of the LCC, DDC, UDC, and Soviet BBK classification systems. The paper also addresses the relationship among paradigms, principles for exhibiting works of art, ways of conceptualising and organizing the content in documents on art history, and LIS knowledge organization systems. It is concluded that the UDC, in particular, is well suited for representation of knowledge produced in the contexts of pre-paradigmatic, iconological, and stylistic studies. But documents by the so-called "New" art scholars drawing on interdisciplinary studies and representing "new" approaches and paradigms break with the taxonomies on art in the "classical" hierarchical, universal classification systems. A step towards a solution of problems caused by this break is a polyhierarchical thesaurus such as the Art & Architecture Thesaurus.

1. Introduction

This article analyzes aspects of knowledge organization in the domain of visual art with special emphasis on painting. The article starts with a brief review of relevant literature. Next, three levels of knowledge organization in art institutions are presented: 1. Art exhibitions, 2. Primary and tertiary document types (printed, audio-visual, and multimedia documents), and 3. Classification systems, bibliographies, thesauri, (and other secondary document types). A basic assumption is that historically determined discourses on art and paradigms in art scholarship pervade all three levels of knowledge organization, though there are differences from level to level. To

demonstrate the ways in which the discourses and paradigms – or approaches – pervade knowledge organization in the art institution, the history of the art institution is sketched. Three paradigms in art scholarship (the iconographic, the stylistic and the materialist) are discussed. Then, the classes on art in three universal classification systems (DDC, LCC, and the Soviet BBK) are analyzed. To conclude, the article explores the difficulties in knowledge representation caused by the "new" art history. This alternative paradigm can be shown to conflict with the ""natural" way of understanding and conceptualising art represented in art exhibition practice, art scholarship, and Library and Information Science (LIS) knowledge organization.

2. Knowledge organization and the domain of art studies

This brief review of literature on knowledge organization in the domain of art studies, focuses on analysis of classification systems for literature and other materials on art in an historical and scholarly context. The emphasis excludes the growing literature on knowledge representation and organization of images. Special attention is paid to analysis and reflections on historical factors influencing the conceptions of the classification systems and the conceptual structures in the scholarly domain, versus general classification theory and universal classification systems. Related to the latter, of interest is the influence of scholarly paradigms in the domain on the conceptual structures of classification systems. The review covers only the last three decades and takes the special issue of ARLIS/NA: Library Classification Systems and the Visual Arts as a starting point (Bostick & Mandel 1975, Clarke 1976, Schimansky, 1976).

Analysis of the relationship between knowledge organization and art studies in the 1970s focused foremost on the needs of users within their professional contexts as art scholars, creative artists or others. The research aimed to enhance the knowledge organization systems. Bostick and Mandel underline that the classification systems depend on the conceptions and practices of the scholars and the users in the domain:

Art research is characterized by an abundance of methodologies, and our classification systems can only be as systematic as our authors and our readers. (Bostick & Mandel 1976, 1)

This means that the classification system for literature on the arts is understood in a domain context. The classification system is influenced by the publications and their use within the domain. Clarke also expresses the importance of art scholarship for classification. In dealing with universal classification systems she calls attention to a basic problem, namely a kind of contradiction between the classifiers and the art scholars:

The two library schemes mentioned above (LCC and DDC) were not specifically developed by art historians but by classifiers, and they especially reflect the schemes for other disciplines in their respective systems. Therefore, the Art classification scheme in DDC is

heavily dependent on Dewey's general division of knowledge as reflected in his entire scheme; and the LC schemes for specific types of art such as printmaking, following the general scheme for Art which in turn is similar to the schemes for other disciplines. (Clarke 1976, 3)

The core problem identified is that the overall structure of LCC and DDC as reflected in the construction of respectively the classes N and 700 in some aspects "contradict" the conceptual structures in the art domain. In the context of literature on art history there is no general contradiction between classifiers and art scholars due to the historical character of the (classical) art studies:

Art historical research, like all historical research, is based on the coordinates of geography and chronology (space and time). These coordinates underlie the concept of "style" and determine the contexts of works of art. The classification scheme usually chooses either geography or chronology as an initial structure and modifies it with the other coordinate. (Bostick & Mandel 1976, 2)

On the other hand, Bostick and Mandel find the division by medium in the LCCS problematic because the users in general are interested in the works of an artist regardless of whether the works are in different media or not. Such works on individual authors, periods, and styles or artistic movements are separated by the classification schemes. This division, according to media, is also seen as problematic in the separation of Decorative Arts from Fine Arts because some historical movements (such as Rococo and Art Nouveau) have found their expressions in the Decorative Arts.

In the context of this article it is interesting that Bostick & Mandel point to the specific needs of a scholar of Iconography whose interests cross the special subjects section. (Bostick & Mandel, 3). Iconography (or the iconographic paradigm) is one of the classical paradigms in the domain (cf. 6.1). The two authors express that a user who is a scholar in Iconography has needs specific to the paradigm to which he belongs. Schimansky (1976) emphasises a typical feature in art scholarship and in the humanities in general: the development of new concepts that change the scholarly framework. Analysing the Metropolitan Museum of Art Library Classification Systems she writes:

New art terms make it imperative to replace the outdated terms in the classification, and recent art movements and techniques require the enlarging of some sections. (Schimansky 1976, 5)

In the 1980s there was little focus on these problems. An article of Molholt and Petersen (1993) refers to the special issue of ARLIS/NA and has its main focus on the Art and Architecture Thesaurus (AAT) as a bridging mechanism between the manifestations of visual arts and the different organizations (museums, libraries) that serve the viewers of art. To some extent this article represents a shift in focus from the organization of documents on art to the representation and organization of images in electronic image bases. However, the article also treats the construction of this thesaurus and its hermeneutic horizon. The AAT "represents a view of the world, an aggregate view of experts, but a view nonetheless." (Molholt & Petersen 1993, 31). From the experience that there has been no need for changing the original structure of the AAT during a decade they conclude: "This may suggest that there is a commonly agreed way, for purposes of description, to talk/think about visual art, a pathway if you will." (Molholt & Petersen 1993, 32). The implicit idea seems to be that the different groups of art scholars who have contributed to the thesaurus have an integrated common conception of the scholarly domain of art studies.

Among many other aspects of art librarianship Wyngaard (1993) deals with classification. She analyzes some differences and similarities between the DDC and the LCC at a general level. One aspect analyzed is the implicit concept of art as it can be seen in the main classes 700 and N. DDC distinguishes between Useful Arts (600) and Fine Arts (700). LCC includes the majority of the visual arts in class N while it "excludes" aesthetics from this class. Another aspect is the criteria for the major divisions. Both classification systems describe the class painting by subject (of the painting such as portrait), time period, technique, style, nationality, and a combination of these. (Wyngaard 1993, 9-10). Her analysis does not go into further detail.

Roberto Ferrari (1999) analyzes and compares the DDC and the LCC systems mutually and with four alternate classification systems developed by special art and design libraries. The analysis treats the functional and pragmatic aspects of the use of these classification systems in art libraries. That both the DDC and the LCC are too general for special art libraries has caused the need for alternate systems.

Ferrari points to the historical origin of universal classifications systems and the four alternate classification systems for art and design libraries in his explanation of some features: Medium versus history/ethnicity.

One must keep in mind that art movements such as "Renaissance" and "Rococo" were terms being used for the first time in the late-nineteenth century academe. Hence for early classification systems such as DDC, LCC, and the first of the three alternate classifications systems discussed here (the Toledo Museum of Art Library Classification system), the focus was on medium. (Ferrari 1999, 91)

Ferrari explains historically why the main division of the classes on art in the DDC and the LCC is by media and not by time (movements, style). Ferrari and Molholt and Petersen (1993) are used as a starting point to present general and universal systems of knowledge organization as products or "reflections" of historically developed concepts and conceptual structures. Concepts from different historical periods – and different points of view – are woven together in classification schemes and other systems of knowledge organization. In this sense classification schemes are products of "bricolage" processes in which they have been marked by certain worldviews, conceptions from different stages in the history of the art institution and different scholarly or scientific paradigms. The term "bricolage" is one of the key concepts in the French anthropologist Claude Lévi-Strauss' "The Savage Mind" (La Pensée Sauvage). "Bricolage" is the work of the mythical artist – of the "bricoleur" whose

materials are (...) the debris of culture, the language and the traditions of the tribe, the myths and beliefs of that tribe, the outer world and all it contains, but all of this is available only in its preconstrained' state. (Lévi-Strauss, 1969, 51¹)

"Bricolage" is generally defined in anthropology and sociology as: "a composite construction made out of bits and pieces" (similar to a collage), this term is used to describe how texts are made out of bits and pieces of culture, history, language, and others texts"² In this meaning classification systems are products of a "bricolage" process. Their apparently logical taxonomies "hide" that they are products of such processes.

According to Pauline Rafferty, and relevant to the problem stated by Clarke, the worldview inherent in general and universal classification systems can be analyzed at the level of the main classes and the general principles. Rafferty writes:

Method, order and objectivity, which carry with them the connotations of "science," are achieved in the general library classification scheme through the rational structures and conventions of Main Classes which assert forms of logical taxonomy, and through artificially constructed symbols which bear with them connotations of algebraic languages. These taxonomies are the product of rational, and often pragmatic and functionalist worldviews. (Rafferty 2001, 181)

In this analysis, there is a difference *between* the worldviews and paradigms that are "reflected" in the universal classification systems *and* the taxonomies as described by Rafferty, above. In fact there is a kind of a contradiction between the "bricolage" of worldviews and paradigms on the one side and the rational worldviews structuring the formal side of the taxonomy on the other side. The apparently logical taxonomies are constructed on the basis of rather heterogeneous conceptual structures that are results of a "bricolage" processes.

3. The art institution and the scholarly domain of art studies

The points of departure and the perspectives of this article can briefly be sketched as follows:

When dealing with art, there is a difference between the art institution and the scholarly domain of art studies/art history. The concept of the art institution has two components. One is the whole range of persons (artists, art critics, art historians etc.), their activities (creating art, organizing expositions etc.), and the special institutions in which these activities are taking place (academies of art, art museums, art editorials etc.). Further, there are the (historically determined and competing) social and aesthetic values underlying and governing these activities.

The scholarly domain of art studies is an integrating part of the art institution. Hence, this domain should be analyzed both in the context of the art institution and as a scholarly domain. This analysis of knowledge organization dealing with art draws on both of these interrelated contexts. The context of

the art institution is treated rather briefly, partly as a historical sketch, partly as a description of art exhibitions as a level of knowledge organization.

This analysis of knowledge organization in the context of the scholarly domain of art studies takes as a starting point, Hjørland (2002). Hjørland states that domain analysis should always include three or four of eleven approaches. Of the eleven approaches, this article concentrates on a) historical studies of the domain (the historical study of categories, concepts, contexts and knowledge organization), b) analysis of discourses, symbol systems and "technical language," and to a lesser extent c) document and genre analysis (histories of art) and d) some indexing. A special emphasis is put on the incongruity between the "traditional" and the "new" art history.

4. Knowledge organization at three "levels" in the art institution

Exhibitions of works of art are integrating parts of the art institution. When works of art are presented and situated in contexts, they become a kind of knowledge organization which takes place as an institutional practice. This will be called the institutional level of knowledge organization. There are two other levels in the scholarly domain of art: presentation of the subject matter in publications on art and the level of knowledge organization as it is normally understood in LIS.

The three levels are "articulated" as follows.

- Art exhibitions: the works of art are exhibited in museums, in art galleries, in virtual museums, and in pictorial databases according to specific criteria or codes.
- Document types (printed, audio-visual, and multimedia documents): the content of the documents is arranged according to (rather) specific patterns for presentation and understanding. (Primary and tertiary document types).
- Classification systems, bibliographies, and thesauri (and other secondary document types). At this level, both the works of art (cf. Iconclass) and the documents are organized.

This article concentrates on exhibitions in, or arranged by, art museums. Other types of exhibitions (such as sales exhibitions) are created according to other criteria than those based on art scholarship. In general the physical and virtual exhibitions of the permanent collections in the art museums are ar-

It is well known that d'Alembert based his system of human knowledge in the "Preliminary discourse to the encyclopaedia of Diderot" (originally published 1751) on a revised version of Bacon's atlas. With Locke's theory of knowledge as the foundation, d'Alembert revised the order of the three parts of human learning. Philosophical notions are "formed by the combination of primitive ideas." (d'Alembert 1995, 36). Poetry is another kind of "reflective knowledge":

It consists of the ideas which we create for ourselves by imagining and putting together beings similar to those which are the object of our direct ideas. (d'Alembert 1995, 37)

From d'Alembert's point of view, poetry presupposes a more advanced mental operation than philosophy. This is the reason why d'Alembert revises Bacon's order of the faculties of human understanding and the system of human knowledge: history, philosophy, and poetry. Concerning the arts, there is a radical difference between Bacon and d'Alembert. D'Alembert's category of poetry brings together literary kinds/genres, music, architecture, painting, sculpture, and engraving. The subdivision of this category is based on whether the form of art "speaks" to the senses, to the imagination, or to both.

Painting and Sculpture ought to be placed at the head of that knowledge which consists of imitation, because it is in those arts above all that imitation best approximates the objects represented and speaks most directly to the senses. Architecture, that art which is born of necessity and perfected by luxury, can be added to those two. ...Poetry, which comes after Painting and Sculpture, and which imitates merely by means of words disposed according to a harmony agreeable to the ear, speaks to the imagination rather than to the senses. ...Finally, music, which speaks simultaneously to the imagination and to the senses, holds the last place in the order of imitation —... (d'Alembert 1995, 37-38)

D'Alembert's analysis and subdivision of the category of poetry is essential to the categorization of the arts in modern classification systems from Dewey and onwards.

Vasari's Renaissance conception of the historical cycle was radically changed in the Enlightenment. In the "Preliminary discourse to the encyclopaedia of

Diderot," the second part is an analysis of "the progress of the mind" from the Renaissance to d'Alembert's age, the Enlightenment, and this means that the idea of the cycle was substituted by the notion of evolution.

In the years following the revolution in 1789, France occupied a key position in the development of modern museums. The intention was to save and communicate the "monuments" of the arts, and to affirm the power of science and reason. When the Louvre opened as an art museum for the people in 1793 the exhibition was organized according to chronology and geography — instead of aesthetic principles. These new principles of organization were expressions of the ideas of evolution and nationalism. The aim was to give the visitors an image of the progressive grandeur of the culture and especially of the national culture. These principles have since been the most influential in museum exhibitions, historical treatments of the arts and in classification systems.

At the end of the Enlightenment some of the main principles relevant to knowledge organization in the art institution were the ideas that art forms belong to categories, the division of art forms according to epistemological principles, and the concepts of evolution and nationalism. Melvil Dewey used these principles in the first edition of his *Classification and Subject Index*. Dewey incorporates new art forms (Landscape Gardening, Photography and Amusements) but the basic division corresponds with d'Alembert's. Dewey placed Literature in a separate class following Fine Arts but this was in accordance with the principles used by d'Alembert. Dewey uses divisions in historical epochs (ancient and oriental, medieval and modern) and in national schools of painting (Flemish and Dutch schools, French, Italian), and Literature is basically divided according to nations and languages. Besides these principles inherited from the Enlightenment some earlier principles and concepts are used by Dewey [i.e. Color (752), Portrait (757), Landscape (758) and Biography of fine arts (927)]. In other words: Dewey's epoch making "Classification and Subject Index" is constructed as a "bricolage" system on the basis of concepts and categories belonging to different historical epochs.

6. Paradigms in art history and art scholarship

The first edition of Dewey's *Classification and Subject Index* was marked foremost by pre-paradigmatic

studies of the arts and of the philosophical theory of knowledge organization including Bacon and d'Alembert (Muñiz, 2003).

The “traditional” art history paradigms were developed from the late nineteenth century to the sixties of the twentieth century. These paradigms can analytically be divided in two main traditions.

6.1 Cultural history and the iconographic paradigm

The first paradigm is developed within the tradition of cultural history going back to the Swiss historian Jacob Burckhardt (1818-97). Burckhardt aimed at describing the panorama of a whole age and “within this panorama he set the visual arts at or near the centre of the defining characteristics of an age.” (Fernie, 1995, 14). The originally German scholar Erwin Panofsky created his iconographical paradigm in the tradition of cultural history. The iconographic analysis (which included a stylistic analysis) aims at the interpretation of the intrinsic and symbolical meaning of images. The interpretation of this intrinsic meaning is based on the study of contemporary philosophy and literature. For instance, Poussin’s painting “Et in Arcadio ego” is interpreted as an expression of the idea of death around 1640. The focus of this iconographic paradigm is allegorical and symbolic in meaning. Panofsky studied the Renaissance and the Baroque period. Works of art from these periods have a privileged status for the scholars belonging to this paradigm. In general, the art-historical tradition for cultural history (E.H. Gombrich) and iconography focuses on high culture.

The research object of the iconographic paradigm is the meaning of the works of art. In general, the meaning is interpreted in the cultural context of the work- it means the intertextuality of the works of art includes other cultural expressions.

6.1.1 The iconographical paradigm and the three “levels” of knowledge organization

Some recent exhibitions at Statens Museum for Kunst (The Danish National Gallery) have been organized according to themes. This is the case in the temporary exhibition “The avant-garde in Danish and European Art 1909-1919.” The “Introduction” states:

This exhibition does not aim to go into the specifics on how the works belong under the headings of Futurism, Cubism, or Expression-

ism. Instead, it wishes to draw attention to how many artists represented address the same subjects – subjects which are all associated with modern life and existence. (The avant-garde, 2002, 7)

In this exhibition, as well as in “Symbolism in Danish and European painting 1870-1910,” works of art are presented in a cultural context and interpreted in the exhibition catalogues and guides. The thematic principle is overriding. In “Symbolism in Danish and European painting 1870-1910” there are five themes: Beauty and Death, The Greatness of Man and Nature, Silence till Death, Eros and Melancholy, and The Prophets of Beauty. The painter’s nationality, the art form, and the date of the exhibited works are subordinated to the themes. “The avant-garde” and “Symbolism in Danish and European painting 1870-1910” are, in a way, the iconographical paradigm put into exhibition practice.

In the monograph by Læssøe (2000) the main structure of the presentation is historical but each of the seven chapters contains iconographic interpretations of works by individual artists. These interpretations draw on literary, philosophical, pictorial, biographical, and historical sources. To a certain extent, Læssøe represents the iconographical paradigm but he goes one step beyond it because the historical reception of the works of art is an essential aspect of the analysis. The important point is that the themes and the interpretations of the works are the organizing principles.

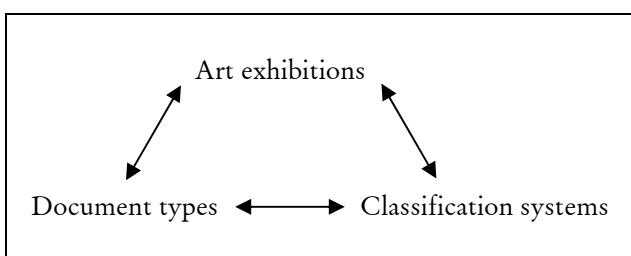
Classification systems, bibliographies, and thesauri usually lack themes and iconographic interpretations at the higher levels in the taxonomies. Before making a brief analysis of this aspect, the conceptions of art and some general characteristics of the art classes are presented within the Library of Congress Classification System (LCC) and the Dewey Decimal Classification System (DDC).

Class N in the LCC covers the visual arts with the exclusion of some decorative art forms (i.e. ceramics and photography) and with the exclusion of some aspects of primitive art and folk art. It means that the underlying understanding of art in the LCC is closer to the “traditional paradigms” than the DDC. In the class “visual arts,” the LCC has almost no features that can be related to the iconographical paradigm. In the class ND-painting, the main divisions are General, History, Study and teaching, General Works, Special Subjects, Techniques and materials, Examination and conservation of painting, Water-

ranged in more traditional ways. Much experimentation with the organization and presentation of art works has taken place in the field of temporary exhibitions.

One general *assumption* is that historically determined discourses on art pervade all three levels of knowledge organization. New discourses are first seen in exhibition practices of temporary exhibitions and in primary document types. Later, these discourses penetrate the tertiary documents and the knowledge representation systems. Though there has been a profound theoretical discussion and a radical change in art scholarship during the last three decades, most popular documents on art are still conceived according to the "natural" understanding of art with focus on the individual artist treated in a biographical and stylistic context. This "natural" understanding of the art is the combined product of pre-paradigmatic ideas from the Renaissance and the stylistic paradigm.

The social and institutional practices of exhibiting works of art, the codes of presentation in different documents types, and the classification systems are mutually interrelated and marked by social values, worldviews, scholarly paradigms and pre-paradigms. Some examples are given in 6.1-6.2 and 6.4.



Social values – worldviews – scholarly paradigms

5. A brief historical sketch of some aspects of the art institution and of some conceptions of art relevant to knowledge organization

Though the modern concept of art was defined by Baumgarten and Kant during the Enlightenment, it is relevant to go back to the Renaissance in order to trace some conceptions and document types that are still important today. It is generally agreed that one of the pioneers of art history and art criticism is Giorgio Vasari whose "Lives of the Painters" (Le vite, 1550-58) introduces a new era. In "Lives of the Painters" there are two basic conceptions: the biographical treatment of the individual artist and the idea of the cycle of cultural ages. Vasari focused on

the genius and the achievement of the individual. The basic narrative structure in these "vite" is the story of the artist's life (as indicated in the title) related to the artist's works of art. Today the most common document types in the art domain treat individual artists (biographies, monographs). According to the idea of the cycle, the Renaissance was a revival of the antiquity and a new peak in the history of culture. In other words, Vasari saw the High Renaissance as superior to Antiquity. This conception of the Renaissance as the period of highest excellence is still found in standard books on art history and in some classification schemes where it is "reflected" in the vast hierarchy of subdivisions.

In 1664 the Royal Academy of Painting and Sculpture in Paris became a centralised institution that developed a doctrine for the theory and practice of painting. A central element in this doctrine was the hierarchy of motives. The most valuable motive was the human being, i.e. biblical and mythological motives. In a descending fashion came the portrait, the landscape, living animals, and finally still life. This taxonomy, (in fact an axiology), as well as a number of conceptual distinctions can be traced in the "bricolages" of today's classification schemes. Among those conceptual distinctions deriving from pre-paradigmatic studies of art are drawing *versus* colour, the different styles and schools of painting (later developed by the stylistic paradigm), the idea of connoisseurship, and Roger de Piles' system for valuation of paintings consisting of four categories: composition, design, colouring and expression.

The history of knowledge organization from the Renaissance and onwards shows how the arts and the study of art have been conceived in a universal knowledge context. In "The Advancement of Learning" (1605) Francis Bacon was not especially aware of the visual arts. Bacon's atlas of human learning is based on the division of man's understanding:

The parts of human learning have reference to the three parts of man's understanding, which is the seat of learning: *history* to his *memory*, *poesy* to his *imagination*, and *philosophy* to his *reason*. (Bacon 1965, 69)

In the sections on history, the history of visual art (in the modern sense) is not mentioned. Some art forms, music and architecture, are categorized under mixed mathematics. And in his treatment of "poesy" Bacon writes that "*Poesy* is a part of learning in measure of words..." (Bacon 1965, 82).

color painting, Mural painting, and Illumination of manuscripts and books. The subclass Special subjects (1288-1460) is divided according to the late Renaissance hierarchy of motives: Human figure, Portraits, Landscape Painting, Marine painting, Animals, Birds, Sports, Hunting, Fishing, Still life, Flowers, Fruit, Trees, and Other subjects. The point of view of this subdivision is "positivistic" without marked linguistic references to the terminology of the iconographical paradigm.

Class 700 (The arts. Fine and decorative arts) in DDC does not conceive of the arts in accordance with the "traditional" paradigms in art history; the class is not limited to a body of works that is considered to be of great cultural importance and aesthetic value. Instead, the class comprises a wide range of fine and decorative arts. The understanding underlying the class does not distinguish between art and craft.

In class 700 the DDC has incorporated the terminology of the iconographical paradigm in some subclasses. This is apparent in 704.9 Iconography and collections of writings, and in the classes 753-758 Specific subjects (Iconography) comprising Abstraction, symbolism, allegory, mythology, legend, and Religion and religious symbolism. At a lower level the terminology of the iconographical paradigm forms an integral part of the "bricolage" of the DDC.

Though UDC will not be fully analyzed, it is noted that class 7.04 covers "Subjects for artistic representation. Iconography. Iconology". The subdivision of this class combines terminology from the iconographic paradigm with categories of motives (subjects).

6.2 The stylistic paradigm

The stylistic paradigm was established around 1870 and later developed by Heinrich Wölfflin (1864-1945). This presentation treats the stylistic paradigm as an "Idealtypus" in Max Weber's sense. It means that the presentation cultivates the typical features of the paradigms without discussion as to what extent scholarly works belonging to the paradigm, deal with interpretations of the works of art.

Wölfflin "considered that laws governed the ways in which forms changed through time ..." (Fernie, 1995, 15). Based on stylistic characteristics (for instance linear *versus* painterly and plane *versus* recession) Wölfflin grouped works into related categories. The analysis of style became the basic and defining

method of the stylistic paradigm in art history and the object was the works of art belonging to high culture. The object of the stylistic paradigm is the formal aspect of the work of art (style, composition, way of painting and the like). The aim of stylistic analysis is to describe, categorize, compare, and systematize these stylistic features in order to determine a sequence of historical styles. It means that the overriding principle in knowledge organization – whether in art exhibitions, art histories or systems of knowledge organization – is the historical sequence of styles. As a consequence of the focus on styles, the intertextuality is limited to works of art, i.e. the history of art is conceived of as an autonomous history. The meaning of the works of art is beyond the horizon of this paradigm. The way works of art are analyzed and organized in taxonomies is similar to Linné's principles in "Systema Naturae" in which the forms of nature in the animal kingdom, the vegetable kingdom, and the mineral kingdom are analyzed systematically and grouped in families, species, and so on (Paludan-Müller).

6.2.1 The stylistic paradigm and the three "levels" of knowledge organization

The traditional way of organizing exhibitions in art museums follows the principles of the Louvre exhibition in 1793 as developed by the stylistic paradigm. The works of art are presented in a historical sequence where style follows style generally within a regional or national context. The exhibition of the permanent collection at the Danish National Gallery, Statens Museum for Kunst, is an example of this.

Janson (1995) treats the history of art in line with the principles of the stylistic paradigm. Focusing on Western art, Janson traces the roots of Western art back to prehistoric times and follows the evolution of the art forms in ancient Egypt, ancient Near East, classical Greece and so on. The chapters covering the period from 1050 to around 1900 have stylistic terms in the titles and some of the structural principles are divisions in art forms and nation or regions.

Romanesque art
Architecture
Sculpture
Painting
Gothic art
Architecture
Sculpture
Painting

....
 The Baroque in France and England
 The Rococo
 France
 England
 Germany and Austria
 Italy
 ...
 Neoclassicism and Romanticism
 ...
 Painting
 Sculpture
 Architecture
 Decorative arts
 Photography

(Janson 1995, 306-387, 588-617, 638-701)

The chapters on the twentieth century do not use the stylistic terms but use names of historical periods (Before World War I, Between the Wars, Since World War II) as subdivisions under the main division in art forms (painting, sculpture, architecture, photography). The individual chapters are subdivided in styles and “isms.” Some structural elements in the part treating twentieth century paintings before World War illustrate this.

Expressionism: The Fauves
 Matisse
 Rouault
 German Expressionism
 Die Brücke
 Heckel
 Nolde
 Kokoschka
 Kandinsky
 ...
 Abstraction
 ...
 Analytic cubism
 Synthetic cubism

(Janson 1995, 761-774)

The taxonomy in Janson (1995) combines historical periods, styles, “isms”, art forms, movements, individual artists, regions, and nations.

In the DDC, the history of the arts (for instance in class 709: historical and geographic treatment in general, and in class 759: historical and geographic

treatment in general in painting) is divided according to centuries, nations, and geographical areas like it is in the LCC. But the difference between these two classification systems is that the DDC uses the terminology of the stylistic paradigm as a part of the taxonomic structure, while the LCC uses these terms in the alphabetical subdivisions of the basic taxonomy based on centuries. Using the 19th century as an example this can be illustrated as follows: DDC class 759.01 has the heading: 19th century, 1800-1900. The description reads:

Including classical revival, romanticism, naturalism, impressionism, luminism, pleinairism, neo-impressionism, pointillism, divisionism, postimpressionism. (Dewey, 1971, 296)

In the LCC the class ND 190-192 covers the painting of the 19th century, and ND 192.A-Z the special aspects and movements of the century. For instance, Impressionist painting and Romantic painting. In the LCC the principle of subdivision – or the taxonomy at the level analyzed – is alphabetic (though this principle is not consequently used, an exception is medieval painting). On the contrary, the DDC uses the taxonomy of the stylistic paradigm, i.e. the historical sequence of styles in the same way as Janson’s “History of Art.”

In the LCC, the subclass on the history of art (ND 49-813) is based on a combination of terms from general history (ancient, medieval, and modern with some subdivisions such as Early Christian and Renaissance) and centuries.

In class 7: “The arts. Recreation. Entertainment. Sport” the UDC has subdivisions (7.03) in which the terminology of the stylistic paradigm is consequently used for the artistic periods, phases, schools, styles, and influences from the medieval period to the “Transition between Expressionism and abstract art.” (Universal Decimal Classification, 1993, 853). This means that the UDC is based more on the stylistic paradigm than either the DDC or the LCC.

6.3 The “traditional” paradigms, LCC, and DDC

The conclusion concerning the influence of the iconographical and the stylistic paradigms on the main classes of art, in the taxonomies of the two classification systems, is that the paradigms are not integrated in the taxonomy of the LCC, while both paradigms, to a certain degree, are integrated terminologically in the DDC. In the taxonomies of both

classification systems, crucial parts are based on pre-paradigmatic concepts and conceptions of art studies (as well as on document types, technical procedures, materials, and general geographical and historical divisions).

The opposite is the case with the UDC in which essential parts of the taxonomy are based on the two "traditional" paradigms. This leads to the conclusion that the UDC taxonomy has a more scholarly foundation than the DDC and the LLC.

These two "traditional" art history paradigms have been criticized during the last three decades for a number of reasons. Among these is that the continuity of art is taken for granted, (a continuity starting in ancient Greece), including the visual use of classical myths, continuing with the narratives and symbols of Christianity, leading to contemporary art. The two paradigms are also criticized for cultivating a canon of art, and for defining art as *fine art* or body of works considered to be of great cultural importance and aesthetic value. The body of fine art consists of painting, drawing, and sculpture (plus architecture and photography). Other characteristics of the "traditional" paradigms are that they understand the stylistic features and the meanings of works of art and art history as fixed structures- in other words, they have an essentialist conception of art.

6.4 The materialistic paradigm

A third paradigm or approach in art history is materialistic, which is generally known as the social history of art. This paradigm was developed in the 1940s and 1950s by among others, Arnold Hauser (1892-1978). The materialistic paradigm is based on "the Marxist thesis that the economic base conditions the cultural superstructure and that, as a result, styles vary according to the character of the dominant class." (Fernie, 1995, 18). Within this paradigm the social functions of art and the sociology of art are studied. In comparison with the two (main) "traditional" paradigms, the materialistic approach has had rather limited influence on art scholarship in general. The materialist paradigm draws on Karl Marx and Friedrich Engels' writings on literature and art, though the basic ideas have been interpreted differently in Eastern and Western Europe until the beginning of the nineties. The works of art are considered as integrated elements in the historical and social context. This materialist conception of art is diametrically opposed to the general Western idea of autonomous art. The materialist paradigm aims at

analysing the meaning and the function of art in the context of material, social, political, and ideological structures (at the time when the works of art were created). This paradigm does not understand the evolution of the art as being continuous. Changes in the power and class structure cause changes in, and ruptures with, the artistic tradition.

6.4.1 *The materialistic paradigm and the three "levels" of knowledge organization*

The materialistic paradigm is not often used as a basis for organizing art exhibitions in the West. One of the reasons being that the social conception of art is contrary to art understood as autonomous. An exhibition at Randers Kunstmuseum (a provincial Danish art museum) in the 1980s used a painting by the Danish artist Wenzel Tornøe as the focal point. This painting "Syerske" shows a sewing machinist sitting utterly tired and almost sleeping at her sewing machine. The other images exhibited, and the text accompanying the exhibition, created a social and historical context in which the painting was interpreted as a critique of the female working conditions around the year 1900.

Arnold Hauser's "The Social History of Art" covers the history of art forms including literary genres from prehistoric times to the film age. This concept of art is more comprehensive than the one used by Janson. Volume Two has the subtitle "Renaissance, Mannerism, Baroque" and volume Three has the subtitle "Rococo, Classicism and Romanticism." These subtitles indicate that Hauser uses the terminology of the "traditional" paradigms; however, Hauser's context is radically different from the contexts of the iconographic and the stylistic paradigm. The character of the context can be shown, with some excerpts, from the contents of volume three.

The dissolution of courtly art

...

The new wealth and the bourgeoisie

The Voltarian ideal of culture

Watteau

...

The new reading public

The English monarchy and the liberal strata of society

...

The new periodicals and the middle class reading public

Literature in the service of politics

Defoe and Swift
...
The Industrial Revolution
The new ethic for labour
The ideology of freedom
Individualism
...

(Hauser 1968, vol. 3, 34-75)

In Hauser (1962), the art is understood in a context that combines changes in economic power, and class structure; altering worldviews; new strata of the public; the political use of art; and interpretations of individual artists as exponents of (new) ideas, social standpoints and artistic qualities. It is emphasized that the art and the different art forms have social functions and that they have to be treated in a social context because they are integrating parts of the society.

In the Soviet universal classification system, BBK, (in the German translation, Bibliothekarisch-bibliographische Klassifikation), the art studies are placed in class Shch: Fine arts, art scholarship (Šč: Kunst. Kunsthissenschaft). The basic taxonomy of the BBK is based on the Marxist conception of nature, society, and culture, including the thesis that the economic base conditions the cultural superstructure of the society.

The totality of nature, society, and culture	A: Marxism-Leninism
The economic base	B: Science in general
	S: Social sciences in general
The cultural superstructure	Ch: Culture, scholarship, general education (Volksbildung) ... Sh: Philology, literary scholarship ... Shch: Fine arts, art scholarship ... Y: Religion. Atheism ... Iu: Philosophy, psychology ... Ia: Universal literature

(Bibliothekarisch-bibliographische Klassifikation: Einführung, 1978, 31-42)

While the main taxonomies in two North American systems can be interpreted as expressions of philosophical idealism, the BBK taxonomy is materialistic. In

the DDC and in the LCC the underlying conception of the art is the idea of an autonomous art sphere - meaning, among other things, that the art does not have social or pedagogical functions. In the BBK the opposite is the case and the art is conceived of as a field of societal practice.

The main class Shch: Fine arts, art scholarship comprises (Shch 03-38): History of the art, Visual art, Architecture, Applied art, Sculpture, Painting, Graphic art, Artistic photography, Music and the performing arts, Music, Dance, Theatre, Mass arrangements and popular festivals, Circus, "Shows," and Artistic radio and television emissions. One feature that distinguishes the BBK from the DDC and the LCC is the emphasis put on artistic mass manifestations. Another feature is the aesthetic criterion applied to photography, radio, and television emissions.

Selected subclasses in Shch 10 visual art that are presented in the figure below can illustrate the character of the taxonomy:

The Marxist-Leninist classical writing on visual art
The methodology of art studies
Partiality in art scholarship
Critique on non-Marxist theories
The history of art scholarship and art criticism
General art scholarship
Art scholarship in the SSSR
The organization of the scholarly research in the field of the visual art
Artistic education
Bibliography, works of reference
Theory on the visual art
Preservation of works of art. Art museums and art collections
The general history of the visual art
Visual art in the "Urgesellschaft"
Visual art in the antiquity
...
Visual art in the 5th to the 18th century
...
Early Renaissance
High Renaissance
...
Visual art in the 19th century
Visual art in the 20th century (from 1917)

(Bibliothekarisch-bibliographische Klassifikation: Šč Kunst. Kunsthissenschaft 1968, 72-85)

The figure above shows the bias of the point of departure. The standards of art scholarship are derived from the classical writings and the Marxist theory in

the domain. In addition, the methodological, institutional, and historical aspects of art scholarship and art criticism are important. The periods used in the classes on the general history of the visual arts are based on the development of the social formations from the "Urgesellschaft" to the communist era, after the October Revolution. Terms from the "traditional" paradigms are logically not used. The terms "Early Renaissance" and "High Renaissance" do not have the same meanings as in the contexts of the "traditional" paradigms. Following the basic conception, there are no classes for individual artists. In short, the discourse of the BBK differs fundamentally from the discourses of DDC and LCC. In the BBK the bias is evident to a "Western" eye. But it is more difficult for the same "Western" eye to notice the biases of, for instance, the DDC and the LCC because their basic points of view seem "natural" - they are integrated parts of our intellectual and conceptual horizon.

7. Changes in the domain of art history and art scholarship

In the early 1970s, "new" art historians with different theoretic orientations started criticizing the "traditional" paradigms. Criticisms included: the narrowness of the way in which art was defined and studied, the focus on individual artists, the limited scope of methods (analysis of style or iconography), and the concentration on the canonical works of art. In some ways these "new" art historians were inspired by the social history of art in their "new" art historical practice. In general, they conceive of art in a broader social context including power structures and the relations between artists and public. In this view, the structures of meaning have changed.

The "new" art history represents a dramatically wider field of enquiry involving new methodologies, although "old" art history is still pursued by some academics. The "new" art history employs an interdisciplinary approach which embraces materials far beyond "traditional" art historical sources, and so information has to be sought outside the art library(Korenic, 1997, 12).

From the librarian's point of view the interdisciplinarity and the sources for art scholarship are important challenges; likewise, for knowledge organization. With the decreasing importance of the "old" art

history and with the biased point of view in the BBK, the taxonomies on art in the "classical" classification systems are out of key with the recent scholarship of the "new" art history. When the object of art studies is redefined interdisciplinarily and with more complex content, the basic conceptual structures - derived from pre-paradigmatic conceptions and, to some extent, from the "traditional" paradigms - are inadequate. Of course the problems can be handled by the use of faceted classification and refinement of subclasses, but the fundamental problems cannot be solved in a (theoretically) satisfying way by the use of the "classical" classification systems. This is - of course - a part of the background for the development of thesauri.

7.1 A brief sketch of some "new" art history approaches

The "new" art history paradigms include approaches that are based on:

- semiotics and theories of representation
- gender history with a feminist inclination
- psychoanalysis
- social history and the history of the art institution

One of the basic ideas of the semiotic approach is that each reading of a text or a picture is a re-creating of it, a construction of meaning in an ongoing process. An example is "Reading Rembrandt" by Mieke Bal (1991). Bal does not see Rembrandt as an individual painter but as an ongoing "semiotic construction." In our interpretation of paintings or etchings by Rembrandt we are not able to "isolate" the work of art from all the interpretations. In other words the oeuvre of Rembrandt is inscribed in a textual universe of ongoing interpretations. In another monograph by Mieke Bal "Quoting Caravaggio," she analyzes the "dialogue" between contemporary "neo-Baroque" artists and Caravaggio. In this intertextual "dialogue" new meanings are created.

The gender historical approach started with a critique of the exclusion of female artists from the canons of art. In "The Obstacle Race: The Fortunes of Women Painters and Their Work," Germaine Greer analyzed the social conditions of the women and the functions and values of the art institution that generally caused the exclusion of female artist. This approach, based on psychoanalysis, aims at exploring the meaning of a picture as being different from what is consciously expressed or stated by the artist. The object shifts from the individual artist to, for instance, the cultural background. Another art scholar,

Norman Bryson, has interpreted some paintings by Géricault in the context of the history of masculinity. To a certain extent, these interpretations can be seen as inspired by the materialistic paradigm and as a continuation and refinement of Arnold Hauser's work.

The "new" art history is inspired from developments and theories in other domains such as history, literature, and philosophy. New ways of organizing exhibitions in art museums and art galleries are somehow related to the shift in orientation from the "traditional" to the "new" art history. As previously mentioned, the "traditional" exhibitions are arranged according to periods in the history of art, styles, artistic movements, regions, and nations. The "new" ways of exhibiting works of art include, for instance, presentations of paintings belonging to different styles and epochs in order to create dialogues and inter-textual relations among these. Generally speaking, the works of art are removed from the "fixed" context of "traditional" art history and presented in an "open" context where the meaning of the work is not given in advance, but is derived from the new exhibition context.

The LCC has a subclass, 1158.A-Z, for Painting related to other subjects, including psychoanalysis and semiotics. In the DDC the class 701: "Philosophy and theory" gathers "appreciative aspects" (psychology, theory etc.) and "inherent features" (composition, color, form, style etc.). The "appreciative" aspects can be expanded with new theories.

8. Art & Architecture Thesaurus

The Art & Architecture Thesaurus is "a structured vocabulary of around 125,000 terms, scope notes, and other information for describing fine art, architecture, decorative arts, archival materials and material culture." (Art & Architecture Thesaurus no date). The Art & Architecture Thesaurus covers far more than the classes on art in the universal classification systems. Though this is evident - given the fact the art classes in the universal classification systems have the whole systems as contexts - it should be emphasized that the coverage seems to be in accordance with the interdisciplinary approaches of the "new" art history, "which embraces materials far beyond "traditional" art historical sources." (Korenic, 1997, 12).

The facets in the Art & Architecture Thesaurus are identified and organized "especially to reflect how a work of art is described." (Molholt & Petersen 1993, 32).

The facets of the AAT are organized to proceed from the most abstract concepts through the style or period of the work, the role of creators, the processes and techniques used to fabricate works, the materials with which they are made, to the names of the objects themselves – the most concrete elements of the description. Each facet contains one or more hierarchies which are arrangements of terms in broader and narrower relationships. (Molholt & Petersen 1993, 32)

The seven facets reflecting seven perspectives on the description of a work of art are:

ASSOCIATED CONCEPTS FACET

Hierarchy: Associated Concepts

PHYSICAL ATTRIBUTES FACET

Hierarchies: Attributes and Properties, Conditions and Effects, Design Elements, Color

STYLES AND PERIODS FACET

Hierarchy: Styles and Periods

AGENTS FACET

Hierarchies: People, Organizations

ACTIVITIES FACET

Hierarchies: Disciplines, Functions, Events, Physical Activities, Processes and Techniques

MATERIALS FACET

Hierarchy: Materials

OBJECTS FACET

Hierarchies: Object Groupings and Systems, Object Genres, Components

(Art & Architecture Thesaurus:

http://www.getty.edu/research/conducting_research/vocabularies/aat/about.html#scope)

The coverage of the "Associated Concepts facet" is described as follows:

This facet contains abstract concepts and phenomena that relate to the study and execution of a wide range of human thought and activity, including architecture and art in all media, as well as related disciplines. Also covered here are

theoretical and critical concerns, ideologies, attitudes, and social or cultural movements (e.g., beauty, balance, connoisseurship, metaphor, freedom, socialism). (Art & Architecture Thesaurus no date)

The examples in brackets, given at the end of the description, point to the "bricolage" character of the facet. In order to cover the wide range of historical and contemporary concepts, the facets are heterogeneous. Balance is a concept going back to at least, Roger de Piles' "Balance de peintres" (1708); connoisseurship is a concept developed in the Renaissance; while freedom and socialism are rather modern concepts. The interdisciplinary approaches to the study of art include: linguistics and related disciplines, museology, science, philosophy, women's studies, political science, communications, economics, and ethnic studies. In other words, concepts from the humanities, the social sciences, and science are integrated in the thesaurus. One important aspect of this is that it is possible to include and emphasize the theoretical point of view and the scholarly paradigm in the knowledge representation. This can be illustrated with the following example. Griselda Pollock's monograph "Differencing the canon: feminist desire and the writing of art histories" (1999) is represented with the terms: feminism and art, woman art historians, psychology, psychoanalysis and feminism. The last terms indicate in a way Griselda Pollock's approach or paradigm. She is one of the "new" art historians like Mieke Bal. Bal's monograph "Reading 'Rembrandt': beyond the word-image opposition" (1991) is represented with the terms: *Rembrandt* Harmenszoon van Rijn, 1606-1669 – Criticism and interpretation, Woman in art, *Ut pictora poesis* (Aesthetics), Art and literature. The problem in this representation is that Bal's specific theoretical approach is missing. The general conclusion so far is that the associated concepts facet in the Art & Architecture Thesaurus, is, to a certain degree, able to cope with the "new" art history-but only to a certain degree.

As a whole, the Art & Architecture Thesaurus is a very comprehensive work of "bricolage" that joins concepts from almost all historical phases of the study of art and architecture, concepts from interdisciplinary studies of the domain and concepts from both "traditional" and "new" art history. For example, the facet Styles and periods is based on the scholarship of the stylistic paradigm. The "polyhierarchical" structure of the Art & Architecture Thesaurus is an advantage in comparison with the "classi-

sical" hierarchical classification systems. On the other hand it should be emphasized that the Art & Architecture Thesaurus is an eclectic work in which the basic structure of facets and hierarchies is constructed on the principles of rationality, order and objectivity in the same way as in (Western) universal classification systems. There are two problems with this. The first is that both rationality and objectivity are apparent. Neither the art institution as a social and cultural field, nor the scholarly domain of art studies is rational. The other problem is that the work of art is conceived of as an object that can be put in different contexts without changing meaning. In other words, there seems to be a kind of an "additive" structural thinking in the thesaurus. And this "additive" structural conception is the reason why for instance, Bal's specific theoretical approach is not adequately represented.

Conclusion

The aim of this article was to analyze some aspects of knowledge organization in the domain of the arts, especially visual art. From this brief analysis some conclusions can be drawn. First, different socially and historically embedded discourses on art, including pre-paradigmatic studies and scholarly paradigms pervade knowledge organization in the art institution at three levels. These three levels are "articulated" respectively as: 1. Art exhibitions, 2. Primary and tertiary document types (printed, audio-visual, and multimedia documents), and 3. Classification systems, bibliographies, thesauri (and other secondary document types.) Concerning the general discourse in which art is understood, there is a marked (ideological) difference between the Soviet BBK on the one hand, and the Western classification systems (DDC, LCC, and UDC) on the other. Though the universal classification systems as such are constructed on the basis of (formal) rational and logical structures, the analysis of the art classes show that the substantial "layers" "beneath" the rational structures are constructed as "bricolage" works. The systems analyzed, including the sketched analysis of UDC, show that there are significant differences among the four systems, both regarding the understanding of art (which is a part of the discourse) and regarding the concepts of the "bricolage" work. The LCC system is the one that to a lesser extent, includes concepts from the "traditional" paradigms, the iconographic and the stylistic paradigms. In other words, it is a system in which scholarly conceptions are of minor importance

compared to general formal structures. The opposite is the case with UDC in which substantial parts of the taxonomy are constructed on the basis of the "traditional" paradigms. The DDC system can be placed in between. The taxonomy of the BBK is based on the Marxist conception of art and has a less "bricolage" like structure, because the "deep" structure is more rational as a result of an overriding theoretical construction. On the other hand, this "firm" construction creates "blindness" in the sense that non-Marxist concepts tend to be excluded or negated.

Simplified, it can be concluded that the UDC, in particular, is well suited for representation of knowledge produced in the contexts of pre-paradigmatic, iconological, and stylistic studies. During the recent three decades the so-called "new" art history or the "new" art scholarship, has developed interdisciplinary approaches, or paradigms, that break with both the general discourse on art and the "traditional" paradigms. This means that the "new" art history, by introducing new contexts and new theoretical positions, breaks with the principles (and practice) of knowledge organization at the three levels. From a LIS knowledge organization point of view the challenge is to be able to represent the documents produced by the "new" art scholars in (theoretically) adequate ways, *in addition* to the representation of the whole historical corpus of documents on art. The central problem is that a *hierarchical* system based on a "traditional" discourse combined with concepts from the "traditional" paradigms is "conceptually closed." At a pragmatic level a "polyhierarchical" thesaurus such as the Art & Architecture Thesaurus, seems to be a step towards a solution of some problems raised by the approaches of the "new" art history. Because the Art & Architecture Thesaurus is a more "open" and more expanded work of "bricolage" than universal classification systems, it is easier to integrate new aspects of art studies in the facet structure. At a theoretical level however, the eclecticism and the "additive" conception of conceptual relations mean that the Art & Architecture Thesaurus has a problematic epistemological foundation.

Notes

- 1 The quotation is from Roger C. Poole's Introduction.
- 2 <http://social.chass.ncsu.edu/wyrick/debclass/gloss.htm>

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