

From the Card to the World City: knowledge organisation and visualisation in the work and ideas of Paul Otlet

W. Boyd Rayward

Professor Emeritus University of Illinois
& University of New South Wales

International UDC Seminar 24-25 October 2013

The Hague. The Netherlands

The Young Paul Otlet



The Book and Bibliography

- A 23-year old Otlet questions the nature of the book in conveying information: arbitrary, technologically determined
- New role for Bibliography in the social sciences analysing and coordinating documentary content
- Need a “systematic, detailed synoptic outline of knowledge”
- To create “positive” knowledge like that of the exact sciences , ultimately social scientific laws

IIB-OIB, 1895

- Discovery of 1884 ed of the Dewey Decimal Classification
- International Conference of Bibliography 1895
Répertoire Bibliographique Universel
Classification Décimale Universelle
Office International de Bibliographie
Institut International de Bibliographie
- Herbert Haviland Field & Concilium Bibliographicum
cards, cabinets, classification

UDC 1

- Development of subject arrays – cooperation so scientists and scholars all over Europe
- Faceted structure elaborated by Otlet (and others)- Auxiliary tables for Common Subdivisions; signs of association
- procedures for parallel analytic subdivisions in the main tables
- UDC to provide subject access to the RBU by complex encoding of what documents were about

1897 Abridged tables of the UDC, 70 pages

1905 *Manuel du RBU*, 2000 pages

UDC 2

Auxiliary tables and signs of association

form (), time (.1..)(.2...) (.3...), relation : , proper name A-Z,
place «», language =

- 52(02):42 chemistry treatises in English,
 - (0) form division, 2 treatise
 - (3-9)divisions according to political place
- 597(281:44) Fish in French lakes
 - (2) divisions according to physical place, 81lakes

526.9:336.211(431)«1927»=3

(Guide to Prussian cadastral surveying in 1927)

Information Retrieval and the RBU

- Growth of the RBU: Total number of cards

1899 c.3,000,000 (IIB Bull 1899,165-7)

1912 11,346,000 (Masure, Rapport 1912,114)

1934 15,646,346 (T de D 405)

- Can be consulted daily 9-Noon; 2-6pm on site
- Specific questions answered by staff;
typed extracts or copies of cards at 10 centimes per card (later 5 centimes; during the WWII, 1 fr.);
a search producing more than 50 cards (then 5 francs) contact enquirer before copying “to avoid surprise”

Searching the RBU

- 1896 21 requests; 434 cards
- 1902 270 requests, 10, 192 cards
- 1905 509 requests, 4,532 cards
- 1912 178 requests, 10, 581 cards (Masure, 140)

Examples of Requests in 1912

- Comparative statistics of European Public Debt 1911; Provision of milk in NY City; Education of abnormal and backward children; The boomerang; Manufacture of cyanide; Italian Primitives; Emigration of the Jews; Washing coal in coal mines; Comparison of 100 horse power gas and steam engines (Masure 1912 94-97)

Developments in the IIB - OIB

- 1906, Universal Iconographic Repertory:
 - 1912 250,000 items
- 1907, Documentary Encyclopedia:
 - 1914, 1 million items in 10,000 subject files
- 1906 The Collective Library of Learned Societies and Associations;
 - 63 in 1912
- 1910 The Union of International Associations
- 1910 International Museum
- 1920 International University
 - (summer School, 1920, 1921, 1924, 1927)

The Turn to the Visual

Science of Bibliography & Documentation, 1903

Documents:

1. natural physical objects, specimens, samples, models;
2. Monuments-inscriptions, drawings, utensils-objects related art, archaeology, epigraphy and iconography
3. Graphic, symbolic, figurative, schematic representations of knowledge

Includes all forms of written and printed matter – includes maps, drawings, charts, engravings, diagrams, music scores diagrams, maps

Problems of Access

- Increasing volumes and variety of documentary materials requires new approaches in consultation
- Facilities and systems to aid rapid, multi document skimming
- Documentary Processing; re-representation of information
- Monographic principle: card(or sheet), classification, cabinet → the Universal Book,

The Universal Book- Encyclopedic Synthesis of specific domains

- Major function: Condensation of data and their visual representation by means of tables, diagrams, charts, outlines -rapidity of consultation and comprehension
- Illustrated with drawings, engravings, facsimiles, photographs
- Everything on cards and sheets organized by a universal classification to give a integrated systematic, continuous, always up-to-date source

The Image –still and moving

- The power through printing for image to give material form to an idea
- Projections lumineuses, slide projection (end to minute boring intangible descriptions) –direct representation of objects, use of schemas and diagrams
- Cinematograph –(plus phonograph)- “marvelous organ of rapid information”
- Microfilm- Otlet and Goldschmidt experiments
- Multimedia extensions to the book (1906): Book photographed, telephoned, projected... broadcast (“livre photographié, livre téléphoné, livre projeté...livre irradié”)

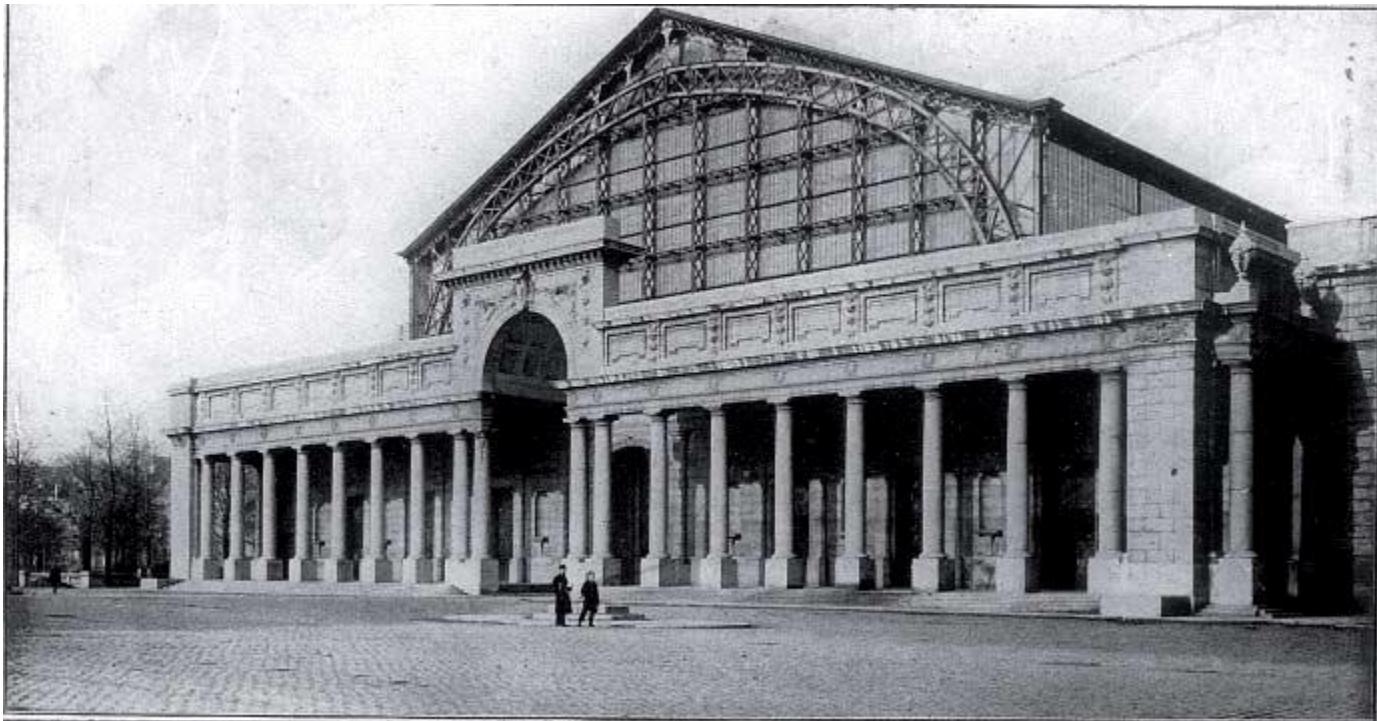
A l'Université Nouvelle, 67 rue de la Concorde:
M. Paul Otlet, « Essai d'une théorie du schéma
et du diagramme comme méthode générale
de figuration des idées »

(Indépendance Belge, 14 -2-1911)

UIA, Exposition Musée, The International Centre, 1910

- 1910 World Congress of International Associations
- Creation of *an Exposition–Musée*; documentation & objects related to the associations – becomes basis for an International Museum
- The Palais Mondial at the Cinquantenaire:
 - International cooperative Library,
 - RBU,
 - Universal Documentary Archives,
 - the International Museum (World Museum)
 - Offices of International Associations (esp. of IIB-OIB)

The Palais Mondial –Mundaneum, 1910-1934



Microfilm Gallery Palais Mondial, 1910



Otletian Museology 1910, 1913, 1917

1910

- Objects -Ideas illustrated by objects
- Graphs, Schemas, Charts
- Labels and Notes
- Classification

1913

Ideas of great scale evoked by representations by small scale models, samples, maps, graphs, diagrams –museum becomes a world in miniature capable of being exhibited in the space of a building -- A Cosmoscope

1917

“An effectively installed museum, catalogued, with numerous explanatory notes, drawings, photographs, schemas is a three-dimensional book, but superior to printed book on 2-dimensional sheets of paper

The World Museum – The PM as An Educational Museum-Centre

- Conceptually new- similar to conventional museums only in being open to all for viewing
- The museum as Idearium, a place of instruction and demonstration – a Useum
- World Museum as a museum of Encyclopedia and synthesis
- technologies of representation and visualisation used for new kinds of educational materials to encompass in a glance all the conditions of Man
- Education establishments as microcosms: they need libraries, workshop- laboratories and Museothèques (with boîtes-démonstratives)

Encyclopedia Universalis Mundaneum (EUM)

- Standardised panels –manipulable, reproducible, transportable
- All kinds of information could be represented as charts posters tables etc on such panels
- Panels to create mobile museums, (Influenced Otto Neurath), physical volumes, use on classroom walls
- Microfilmed

Encyclopedia Universalis Mundaneum
Encyclopedia Microphotica Mundaneum

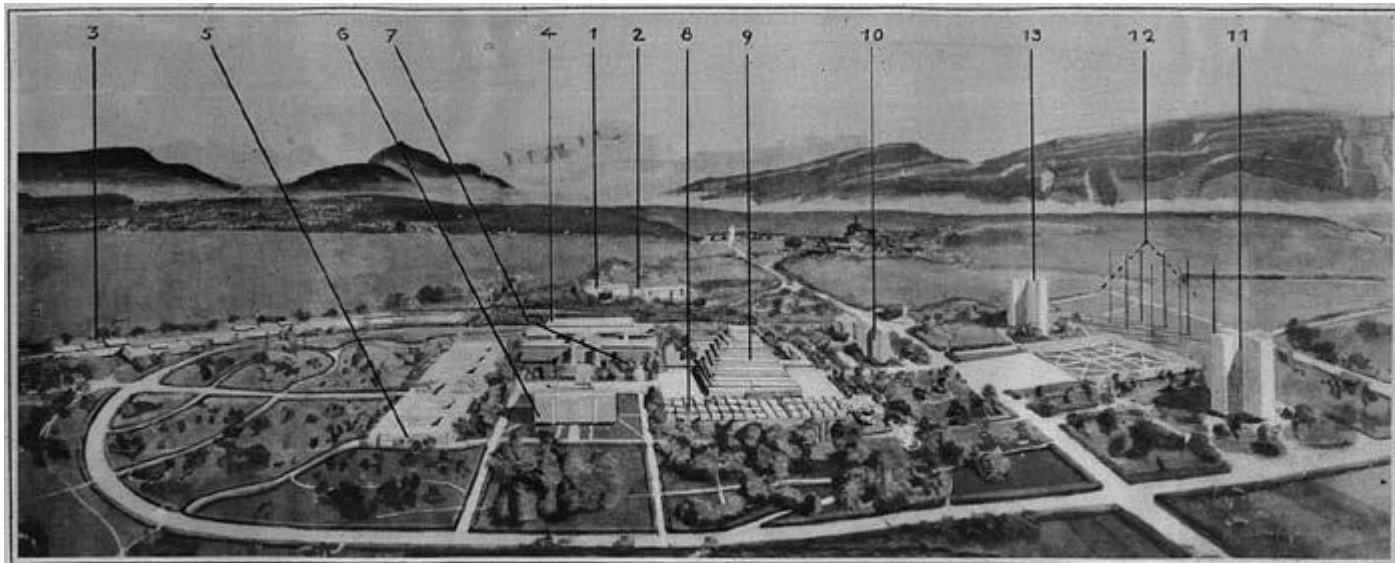
Monde, 1935

- *Monde. Essai d'Universalisme: Connaissance du Monde, Sentiments du Monde, Action organisée et Plan du Monde.* This book is a guide to the processes of visualization represented by the Encyclopedia Universalis Mundaneum (Charles van den Heuvel)
- 1936 incomplete draft of a related book takes the processes one step further- need to go behind concrete-symbolic stage to present “abstract figuration” – a new kind of notation as an instrument for the “calculation of ideas for education and assimilation of scientific data”

Cité Mondiale

- Visible instantiation, symbol of new world order of which PM-Mundaneum would be the intellectual center
- A colossal book, A Bibliopolis
- Time will bring about an immense edifice that rises from “the Card to the World City”

The Cité Mondiale near Geneva as planned by Le Corbusier in 1928



Le projet de Cité mondiale des architectes neuchâtelois Le Corbusier et P. Jeanneret.

Cette « cité mondiale » devrait s'élever près de Genève. Elle serait le centre universel où battraient le cœur de la civilisation nouvelle, qui se fonde sur la coopération des peuples. Là seraient réunis le B. I. T. (déjà existant), le Palais des Nations, la Banque internationale, la centrale des organisations de l'hygiène et le mandrasum, c'est-à-dire le quartier général du monde intellectuel. Telles sont, en quelques mots, les grandes lignes de cet intéressant projet, qui fut exposé actuellement à Genève. (1. Le B. I. T., 2. la S. U. N., 3. la Cité intellectuelle; 4. le Stade; 5. le Palais des expositions des nations et des continents; 6. la Bibliothèque; 7. l'Université; 8. le Palais des expositions des Associations; 9. le Musée mondial; 10. la salle des congrès; 11. le Ministère des transports internationaux; 12. la station de T. S. F., et 13. la Bourse internationale.)
(Photo Kottel, Genève)

Paul Otlet 1944

(And André Colet)

