

THE VIRTUAL MINERALOGICAL MUSEUM – MAIN OBJECTIVE OF THE WORLD MINERALOGICAL ORGANIZATION

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ВИРТУАЛНИЯТ МИНЕРАЛОГИЧЕН МУЗЕЙ – ОСНОВЕН ОБЕКТ НА СВЕТОВНАТА МИНЕРАЛОГИЧЕСКА ОРГАНИЗАЦИЯ

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A large amount of mineralogical samples are used for different purposes, from simple collection hobby, to scientific research and teaching material, exhibition objects and museum objects. Beyond these activities, the involved mineralogical samples represent a part of humanity's inheritance.

They are important in two meanings. First, as aesthetic effect, being natural objects with a fascinating beauty, in color, geometric form, a.s.o. Secondly, they represent parts and testimonies of economic value holder ore bodies, which after total exhaust are irreplaceable. The collection, preservation, description classification, cataloging in a systemic manner of all these samples represents a valuable contribution towards preservation of this inheritance of humanity's patrimony.

The valorization, conservation, promotion and sustainable management of this inheritance represent the objectives of the recently founded WMO. Implanted in Monaco, WMO is a scientific ONG, constituted under the form of an international association of many diplomatical, political and economical components. WMO was born at the initiative of a group of researchers, animated by Prof. Angela Craciun, who launched the idea of this project during the meetings of an International Scientific Conference in Alushta, Crimea in September 2003. This idea was met with great interest and enthusiasm by the scientists as well as the representatives of the universities from all over the world, present at the conference.

WMO reunites under its banner institutions and well-known scientific personalities: professors, researchers, curators, collectors, specialized organizations, editors of publications in the domain of Mineralogy. WMO has already as members more than 60 universities and hundreds of individual members. We have to underline the fact that as founding members there are prestigious institutions such as, **The American University of Washington D.C., Columbia University of New York, University of Freiberg, University of Moscow, University of Bucharest, University of Petrosani, Geological Institute of**

Romania, The Mineralogical Society of Romania, The Gold Museum of Brad, The Mineralogical Museum of Baia Mare, as well as individual members, well-known personalities recognized for their contribution for the development of Mineralogy such as, Jan Kutina, author of more than 20 geological maps in as many countries, on 6 continents, the heart of the **World Institution of Metalogenetics**; Ilia Deleff, founder of three museums, donor of great collections of minerals, and so many others.

Always preoccupied with life and environment quality and with its influences on human health, WMO:

- sustains and encourages the scientific research, the interpretation of the results obtained and their dissemination for the great public,
- sustains and favorize significant projects of mineralogical studies as well as their application, with the specialized scientific institutions as well as with the financial organizations and international governments involved in the environmental protection,
- generates and initiates cooperation activities, exchange of opinion and ideas among the specialists, promotion of the national scientific and cultural values, taking into consideration that the minerals are submitted to a special regime of protection, identical to that of preserving works of art from the national patrimony,

As a main intention, WMO plan to realize a virtual mineralogical museum, as a MetaDatabase in order to serve scientific, academic, general public interests, creating the awareness to the necessity to disseminate knowledge and to preserve this natural inheritance of the humanity.

It exist a large number of virtual mineralogical museums, representing parts of material museums around universities, public natural history museums, private collections, a.s.o.

The existing museums have as objectives and as a consequence target people pure entertainment, scientific education, training, research, hobby, business, a.s.o.

The quasi majority of them are freely accessible, except the purely scientific and the commercial ones.

As content, their metadatabases are from picture + short description until more sophisticated data, such as chemical formula, identification elements, orebody description, etc.

They use for search keys alphabetical name catalog, structural classification, geographic presence, a.s.o

For the purposes of the museum envisaged by WMO the following steps are to be taken:

- inventory of all known virtual and material collections and museums, in order to set-up a comprehensive metadatabase;
- creating a portal with links to all existing mineralogical virtual collections;
- digitizing and preparing digital records of collections and samples which are not yet presented in the framework of a digital (virtual museum);
- creating possibility of contributors to enrich this virtual museum by uploading digital material about samples.

The purpose of the planned virtual museum is to offer an information resource for scientists, collectioners, students, academics, and general public, by a synergy of all good intentions in valorization and promoting the mineralogical samples and information as a common asset of the humanity in order to concur to its preservation.

A discussion on the subject "Virtual museum" will follow, in order to clarify the technical and conceptual aspects of the topic.

The meaning of "museum" includes all collections open to the public, of artistic, technical, scientific, historical or archaeological material, including zoos and botanical gardens, but excluding libraries, except in so far as they maintain permanent exhibition rooms.

(Constitution and By-Laws of the International Council of Museums, 1946)

More explicit meaning of „museum“ denotes any permanent establishment, administered in the general interest, for the purpose of preserving, studying, enhancing by various means and, in particular, of exhibiting to the public for its delectation and instruction groups of objects and specimens of cultural value: artistic, historical, scientific and technological collections, botanical and zoological gardens and aquariums. Public libraries and public archival institutions maintaining permanent exhibition rooms shall be considered to be museums.

(ICOM Constitution, July 9th, 1956)

The idea of the "virtual museum" is currently under construction. In the museum and information science literature a variety of terms are used synonymously for museum-related

digitized information resources, e.g. electronic museum, digital museum, on-line museum, hypermedia museum, meta-museum, Web museum, and Cyberspace museum. All these terms share the concept of digitized museum information that is brought together in an online-accessible collection. A well-known definition for the "virtual museum" was presented in Britannica Online, the Internet version of the Encyclopaedia Britannica. The "virtual museum" is described as a collection of digitally recorded images, sound files, text documents, and other data of historical, scientific, or cultural interest that are accessed through electronic media. A virtual museum does not house actual objects and therefore lacks the permanence and unique qualities of a museum in the institutional definition of the term.

The use of telecommunication technologies offers interesting perspectives for museums and the opportunity to add a new, digital dimension to the traditional museum, thereby creating a "virtual museum". The foundations for the "virtual museum" are already laid. Experts estimate that by the end of this decade over 20 million original objects will have been digitized. In this way, museums and the digital information they offer will become loadstones of content for the growing multimedia industry and for museum initiatives for outreach to the public.

As some statistics and research suggest, the public looks for and appreciates museum information on the Internet but has high standards that the museums have to meet. The Internet is a great opportunity which the museums should use to broaden its audience.

The basic feature of the "virtual museum", as it seeks to describe the interrelated and interdisciplinary presentation of museum information with the help of integrated media. Connectedness is the quality that allows the "virtual museum" to transcend the abilities of the traditional museum in presenting information. This new quality can be realized in different ways, for example, in displaying digital representations of works of art next to comparative works by the same artist, artists who have influenced him or her, or works of the same style or period that are exhibited in museums at various geographic locations or that are otherwise not normally accessible together.

Because the "virtual museum" is a logically related collection of digital objects composed in a variety of media, and, because of its capacity to provide connectedness and various points of access, it lends itself to transcending traditional methods of communicating and interacting with the visitors being flexible toward their needs and interests.

In such a way, we consider that the features offered by the digital technology to a museum, fits the requirements of the Mineralogical virtual museum planned by WMO.

A few samples of web pages related to Virtual mineralogical museums are presented as follows.

Recommended for publication by the Editorial board

1. ATHENA MINERALOGY <http://un2sg4.unige.ch/athena/mineral/mineral.html>

The screenshot shows a web browser window titled "ATHENA MINERALOGY: MINERAL IMAGES; Pierre Perroud - Microsoft Internet Explorer". The address bar shows the URL http://un2sg4.unige.ch/athena/mineral/images/minpic_frame0.html. The page content includes a navigation menu on the left with links to various mineral categories like Anatas, Anclabstite, Arsenic, etc. The main content area features a photograph of a mineral specimen, which is a reddish-brown, octahedral crystal of Bastnäsit-(Ce) on a clear, translucent dolomite matrix. Below the image, the text reads: "Bastnäsit-(Ce), on dolomite, (x 14) (Ce₂La)(CO₃)F Timovns, Ariège, F Photo R. Vernet, Coll. G. Bernardi."

<http://www.galleries.com/minerals/>

The screenshot shows a web browser window titled "BAYLDONITE (Hydrated Copper Lead Arsenate Hydroxide) - Microsoft Internet Explorer". The address bar shows the URL <http://www.galleries.com/minerals/phosphat/bayldoni/bayldoni.htm>. The page features a small image of a greenish mineral specimen. The main heading is "THE MINERAL BAYLDONITE". Below this, there is a list of properties:

- Chemistry: $Cu_3Pb(AsO_4)_2 \cdot H_2O$, Hydrated Copper Lead Arsenate Hydroxide
- Class: [Phosphate Class](#)
- Subclass: [Arsenate](#)
- Uses: Crafted as cabochons and as mineral specimens.
- [Specimens](#)

 A paragraph of text describes Bayldonite as an attractive arsenate mineral formed in the oxidation zone of ore deposits, with a green color and high resinous luster. Below this, a section titled "PHYSICAL CHARACTERISTICS:" lists further details:

- Color is green to yellow-green or yellow.
- Luster is resinous.
- Transparency: Crystals are transparent to translucent.
- Crystal System is monoclinic.
- Crystal Habits include tabular crystals, radiating fibrous, granular and massive crusts.
- Cleavage is absent.
- Fracture is uneven.
- Hardness is 4.5.
- Specific Gravity is approximately 5.5 (well above average for translucent minerals).
- Streak is green.
- Associated Minerals are [dufite](#), [mimetite](#), [quartz](#), [hindheimite](#), [cerussite](#), [wulfenite](#), [mimetite](#), [azurite](#) and [limonite](#).
- Notable Occurrences include Penberthy Croft Mine and Wheel Carpenter Mine, St. Hilary and St. Day, Cornwall, England, Arizona, USA and Tsuneb, Namibia.
- Best Field Indicators are color, crystal habit, streak, lack of cleavage, density, locality and associations.

<http://www.spaceman.ca/mineral/index.php>

Mineral 1.0: Carbonates - Microsoft Internet Explorer

File Editare Vizualizare Preferințe Instrumente Ajutor

Adresă <http://www.spaceman.ca/mineral/index.php?listMinerals=&class=Carbonate>

Mineral 1.0 *Test your knowledge of specific minerals*

« Home | Browse Minerals | Quizzes

Minerals by letter: All | A | B | C | D | E | F | G | H | K | L | M | N | O | P | Q | S | T | W | Z

Minerals by class: Carbonates | Halides | Hydroxides | Native elements | Oxides | Phosphates | Silicates | Sulfates | Sulfides

Silicate Subclasses: Amphiboles | Cyclosilicates | Frameworks | Nesosilicates | Phyllosilicates | Pyroxenes | Sorosilicates

Click on a mineral for more details.

Aragonite
CaCO₃
Carbonate

Most distinguishing features:
Stalactitic habit, hardness (greater than that of calcite) and colour.

Industrial/economical uses:
Same as calcite, however abundance is much much less than that of calcite, thus having little economic value.

Azurite
Cu₃(CO₃)₂(OH)₂
Carbonate

Most distinguishing features:
Colour is reliable, association with malachite is also indicative.

Industrial/economical uses:
A minor ore of copper, also has ornamental uses. Sometimes a pigment (when powdered).

Calcite (massive)
CaCO₃
Carbonate

Most distinguishing features:
Recognized by hardness and cleavage. Dolomite and aragonite have higher densities.

<http://www.datametallogenica.com/>

Data Metallogenica on-line - Mozilla

File Edit View Go Bookmarks Tools Window Help

file:///C:/Documents%20and%20Settings/Utilizator/My%20Documents/ANGELA/index.htm

Home Bookmarks The Mozilla Organization Latest Builds

welcome to **Data Metallogenica on-line**
the worlds most comprehensive and representative repository of mineral deposit data

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Gold, Copper and Nickel Pearls from the Orient
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Descriptive sample-based mineral deposit information system

- Global resource for reference, training and education
- Highly user friendly
- Not for profit, self-funding
- 70,000 specimens, 3,000 deposits, 70 countries
- Ores, host rocks, alteration, regolith photographs
- Mine, field and petrographic photographs
- Maps and sections
- Deposit descriptions, bibliographies
- 5,000 mineral analyses (PIMA)
- 6 Gb of unique data
- Studio quality digital imaging, colour calibration
- Colour calibration
- Advanced data compression
- Fast dial-up response
- Super fast searches
- Sliding scale subscriptions, unlimited access
- Special rates for individuals and universities
- Continuous data-building program

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