

# MUSEUM INVENTORY USING A PERSONAL COMPUTER AND THE PC-MUSEUM PROGRAM

## On the example of micro-samples

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The Croatian Natural History Museum possesses more than 2.000.000 natural history specimens. This great wealth has made it necessary to introduce a personal computer into documenting museum material (BUKOVEC, GLUMAC, 1991).

The work is made more complex not only by the great number of samples, but also by their extreme diversity (ranging from minerals to living organisms). Their specific features made it necessary to compose different inventory cards and separate computer programs for different fields. Since 1991 the holdings of the Department of Mineralogy and Petrography of the Croatian Natural History Museum have been inventoried using a personal computer. The PC-MUSEUM PROGRAM for the inventory of mineralogical and petrographical material also makes it possible to inventory micro-samples.

**Key words:** PC-MUSEUM, micro-samples, Authigenic minerals

Hrvatski prirodoslovni muzej čuva više od 2.000.000 prirodnina. Toliko mnoštvo predmeta uvjetovalo je upotrebu uvođenja osobnog računala pri dokumentaciji muzejske građe (BUKOVEC, GLUMAC 1991). Poteškoće pri izradi programa predstavljao je ne samo broj predmeta, nego i njihova ekstremna raznolikost (od minerala do živih bića). Izradom inventarnih kartica i programa primjerenih pojedinim strukama, taj je problem riješen.


Fundus Mineraloško-petrografskog odjela Hrvatskoga prirodoslovnoga muzeja od 1991. godine inventira se upotrebom programa PC-MUSEUM. Program PC-MUSEUM, predviđen za inventarizaciju mineraloške građe, omogućava i inventarizaciju mikrouzoraka.

**Ključne riječi:** PC-MUSEUM, mikrouzorak, autigeni minerali

### INTRODUCTION

Many well-known Croatian mineralogists and petrographers spent their entire professional lives in the Museum and did not only collect and exhibit natural history specimens, but were

also important researchers of world significance. They wrote articles and books, and their research is also documented by a large number of thin sections. Since about 1870, when Đ. Pilar provided the first polarizing


**Hrvatski prirodoslovni muzej**  
**Mineraloško-petrografski odjel**

NALAZIŠTE

IME MINERALA / STUJENE

OPIS

DETERMINACIJA  KATEGORIJA

VRJEDNOST ODREĐENA

MJESTO U ZBIRCI	INVENTARNI BROJ
	600: ZAG: <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> MP 2

- MAKROUZORAK
- FOTOTEKA
- INV. OMOT
- STARA OZN.
- OSOBA
- LITERATURA

Fig. 1. Inventory card of microsamples

microscope, the number of thin sections in museum keeps increasing. As they are part of natural history specimens they must be included in

the museum documentation. Because of special kind of storage thin sections demand, they have been included into a separate collection, containing additionally polished sections for microscopic examination, mounts of sand (mineral) grains, or loose grains X ray powder or material left/or documented some other analytical procedures, and also samples of tiny mineral grains or crystals.

#### THE PC- MUSEUM PROGRAM

The program was made in the dBASE-Clipper. It is organized as a progression through menus. The main menu contains the data input, find, print out, backup and the data bank options. When the input option is chosen, "an inventory card is displayed" and data are entered into it. Data bases are defined so that a concept need be entered only the first time. After that it is enough to check whether the concept exists in the data by depressing one of function keys and then depressing the enter key to confirm the desired entry. This greatly shortens inventory time and minimizes errors. Unlike manual finding, where specimens were sought for by name only, the PC-MUSEUM program enables finding by name, site, inventory number, determination, category, "person" (collector and/or researcher) and a combination of name and site. The PC- MUSEUM program find option offers momentary access to the desired data. It also enables the micro-sample to be connected to the corresponding macro-sample. Data are printed out on the displayed inventory card (Fig. 1) and on the shortened card appended to the sample. Data

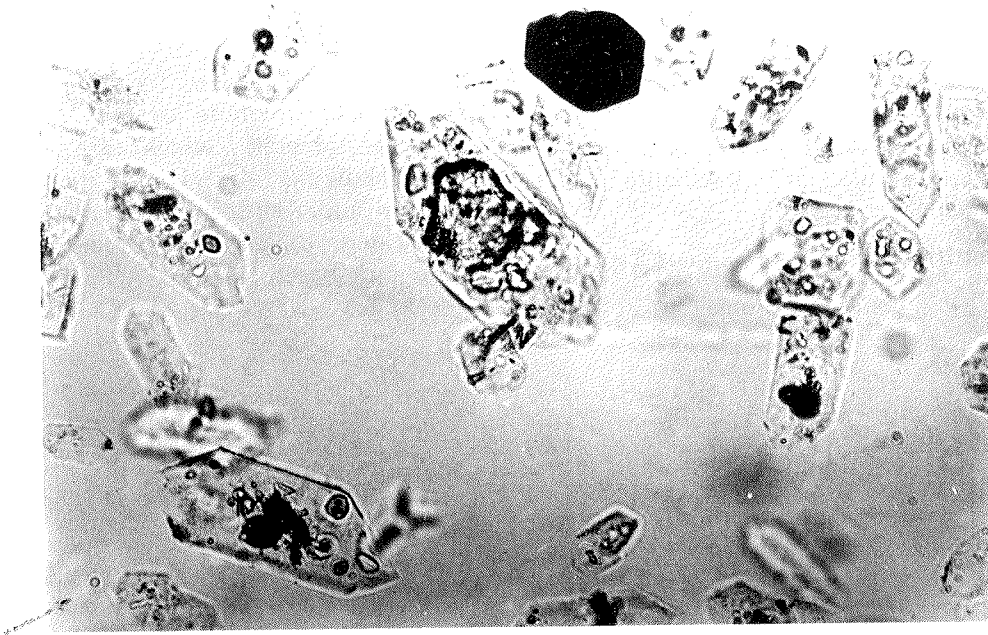


Fig. 2. Authigenic minerals in the undissolved residuum of limestone. 1N, 600x

banks of sites, names, descriptions, "persons", determinations and references create a data base of concepts standard for mineralogical and petrographical material.

The PC-MUSEUM program enables the faster inventory of museum specimens and the incomparably faster and more comprehensive access to entries.

#### REVISION OF MINERAL DETERMINATION FROM THE INSOLUBLE RESIDUE OF "LIMESTONE AND DOLOMITE OF CROATIAN KARST TUĆAN (1911)

The collection of micro-samples includes microscopic slides of insoluble

residue of carbonate rocks of the Croatian Karst obtained by TUĆAN (1911). This work was the base for the theory about the origin of terra rossa and bauxite from carbonate rocks (TUĆAN 1912, KIŠPATIĆ 1912).

TUĆAN (1911) singled out about thirty minerals from the insoluble residue of limestone and dolomite samples collected in about 150 localities of Gorski kotar, Lika and the Hrvatsko primorje, which he considered to be authigenic components of those rocks. Later doubt was expressed as to the authigenic origin of some the minerals listed (MARIĆ 1964) and Tućan himself (1933) left open the possibility that tourmaline could be partly detritic.

Authors in sight into Tućans analytical material confirmed that not all minerals are authigenic. In fact in most slides detrital minerals predominate.

Authigenic minerals are: pyrite, gypsum, anhydrite idiomorphic quartz, fluorite, most of haematite and tourmaline.

Detritic minerals are: quartz grains,

micas (muscovite and biotite), chlorite, garnet, epidote group, corundum, disthene, staurolite, actinolite, zircon, apatite and titanite.

So the Insoluble residue of limestone and dolomite contain detritic group of minerals which are extra basinal showing the composition of land area and authigenic minerals (Fig. 2) indicated diagenetic conditions in sedimentary basen.

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