

## Digital Archiving of the Department Collection

Violetta REITER

Institute of Pre- and Early History, University Vienna

**Abstract:** In 2006 the project “Digital Archiving of the Department Collection” was launched at the Institute of Pre- and Early History at the University of Vienna, under the direction of Ass. Prof. Mag. Dr. Alois Stuppner. The task is performed by 15 students. The Department Collection was founded in 1899 and consists of 50,000 archaeological objects, most of which are surface finds. For the past 100 years, the numbered objects were registered in the inventory book. The purpose of our project is to input data in an MS-Access database. So far, 30,000 objects have been described and 10,000 pictures are available. This information is published on our homepage <http://ufgsammlung.univie.ac.at>. There is a monthly report of our activities and an account of the work done. The whole database is being exported to *unidam* (<http://unidam.univie.ac.at/>). So far, five courses have been offered where students were able to gain experience with the database. Twice a year there is an open day.

We use the information of our predecessors from the past 100 years and we want our data to be available to the students in 100 years as well. What can we do to make sure that this data will still be accessible then?

**Keywords:** Collection, archaeological artefacts, database, archiving, long-term storage

### Introduction

The project of digitally archiving the Department Collection (Fig. 1) started out four years ago under the direction of Ass. Prof. Mag. Dr. Alois Stuppner. The collection currently consists of 50,000 objects, 30,000 of which have already been recorded in a database. The project is financed by the University of Vienna.



Fig. 1 – The logo of the project: A copper spiral from Mondsee 3300 B.C., discovered by Matthäus Much in 1870 (Photo: B. Schier. © Institute of Pre- and Early History, University Vienna).

### The History of the Collection

The collection was founded in 1899 by Moritz Hoernes, who held the first chair in Prehistory in a German-speaking country ever. He borrowed 800 archaeological remains and 100 imitations from the "K. u. K. - Hofmuseum", today called Natural History Museum of Vienna. These objects formed the basis upon which the collection was built. Hoernes used the artefacts to teach his students how prehistoric remains look like. The main part of today's inventory is made up of Matthäus Much's personal collection, consisting of 20,000

objects, which was bought after his death in 1912 by the Ministry of Education and passed on to the Department of Pre- and Early History. The Collection Much includes artefacts from famous sites like Mondsee (FRANZ & WENINGER, 1927), Stillfried, Hallstatt, Rabensburg, Willendorf (NIGST et al., 2008) and so on (MENGHIN, 1913; FELGENHAUER, 1965). Since then the collection has increased to about 50,000 registered objects while 10,000 pieces have not been registered yet.

The collection consists of the best surface finds discovered by various collectors; only a few of the objects come from excavations. Artefacts were published in archaeological journals like the Wiener Prähistorische Zeitung, the *Archaeologica Austriaca*, the *Mitteilungen der Prähistorischen Kommission* and many others and thus made famous. Archaeological material was discussed in scientific papers by members of the Department of Pre- and Early History, as were, for example, the Late Bronze Age artefacts of Mitterberg near Bischofshofen and Kelchalm near Kitzbühel found by Matthäus Much. These objects formed the basis for further research in the course of which the whole process of mining and smelting of copper was reconstructed.

Today the collection is situated in a hall at the Department of Pre- and Early History in the nineteenth district of Vienna, Franz-Klein-Gasse 1. The objects are stored in cabinets (Fig. 2) and sorted by their inventory number. For educational purposes 2,000 pieces are on display in glass cases sorted by period and raw material.



Fig. 2 – The room and the cabinets of the collection (Photo: V. Reiter. © Institute of Pre- and Early History, University Vienna).

Since its foundation, the collection has been relocated several times. In 1945 the collection was hit by a bomb and the artefacts were buried under debris, 5,000 to 6,000 objects were lost. The famous pottery vessels from Rabensburg, 50 cm tall and used in Iron Age burials, had to be reconstructed after this damage. These restorations were finished in the 1970s (KERCHLER, 1977).

The aim of the archiving project is to record and describe any registered object with the aid of the available sources in an MS-Access database. Photos are taken of the most important pieces. This way the data is accessible for education and research.

### Available Sources

The oldest inventory record consists of a *card index* of the Collection Much, starting from 1 (Fig. 3). Georg Kyrle, a famous cave explorer and prehistorian, assessed Much's collection in 1912 and he probably created these index cards. During this time some of the artefacts were given to the Ethnological and Paleontological Department of the University of Vienna.



Fig. 3 – The first card index, probably created by Georg Kyrle in 1912 (Photo: V. Reiter. © Institute of Pre- and Early History, University Vienna).

The *inventory book*, in fact our main register, also starts out with object number 1 of Much's collection, but was likely created later than 1927, since it features descriptions matching those in Leonhard Franz's and Josef Weninger's publication about the pile dwelling settlement of Mondsee written in 1927. No information concerning the dates of the original entries is indicated in the inventory book, and so they are dated using other indications like dates of publications, dates of contract of purchase, or handwriting.

The extent and quality of these inventories depended on the style and the capacity of staff. In case of staff shortage only the inventory numbers were updated. The maximum of information available from these records is the date of acquisition, the origin, the site, a description and the prehistoric period the object can be allocated to, a citation of any relevant publication or paper, and sometimes a drawing. In the 1970s and 1980s Hubert Kühler added black and white photographs to the card index. These pictures are very important for the identification of objects when the inventory number has become undecipherable if, for example the label has become detached.

The available *archaeological objects* are an important and primary source. Information like physical dimensions, description, condition and the place of storage is retrieved from the actual objects and added to complete the missing data of the inventory book (Fig. 4).



Fig. 4 – The actual objects help to complete the missing data (Photo: G. Gattinger, B. Schier, V. Reiter. © Institute of Pre- and Early-History, University Vienna).

Since the data is entered by students from their second year onwards who are still inexperienced, *publications and papers* are important sources. Major information like the allocation to a prehistoric period, classification and the circumstances of discovery are transferred from publications and papers. Drawings are scanned in. In case of missing objects the publications are sometimes the only source of information. The collection owns an archive of *documents*, consisting of six folders. Documents concerning donations and estates are stored in this archive. These documents are important primary sources in helping to confirm places of discovery. They often yield some information about the zeitgeist as well, as do, for example, the reports of Dr. Christopharo, a medical doctor. In 1942, during the Second World War, he collected

archaeological artefacts near the front. He took photos and reported about his finds. These objects and reports are now stored in the collection.

The reports of the cartoonist and prehistorian Ladislaus Kmoch serve as another example. He lived from 1897 to 1971 and was the creator of the first political comic ever to appear in a European daily newspaper, *Mister Seicherl and his dog*, which was published from 1930 to 1933 (DENSCHER, 1983). Apart from this, Ladislaus Kmoch was also a collector of surface finds in the area of Bisamberg near Vienna (KMOCH, 1966). He recorded his findings by drawing the archaeological objects and the conditions of discovery in his own artistic style. Other documents include letters about the exchange of archaeological objects, testaments and contracts of exchange of artefacts. Funding for the study and digitalization of these documents has been requested.

### **The Database**

The MS-Access database we use was created by Ass.-Prof. Alexandra Krenn-Leeb and Mag. Gottfried Artner, both prehistorians. They defined a useful thesaurus to ensure the uniformity of the data entered. The following information is entered for each object: inventory number, site of discovery, place of storage, basic information concerning the acquisition, records about borrowing, and the name of the photographer or illustrator. Apart from that information about the discovery, a description of the object, an allocation to a prehistoric period, any relevant publication and any scientific analysis is entered (Fig. 5). It is handy to use MS-Access's copy functions to enter the data more quickly.

To integrate images into our database, we use the Image Organiser "ThumbsPlus". It saves the image-paths in an .mdb file, which then are imported into our database.

Twice a year the entered data and pictures are exported to *unidam*. Unidam is the web based image archive of the Faculty of Historical and Cultural Studies in Vienna. 50,000 records and 10,000 pictures have already been exported. Researchers and students with a user authentication have full access to both data and pictures via unidam. Both are also available for download.

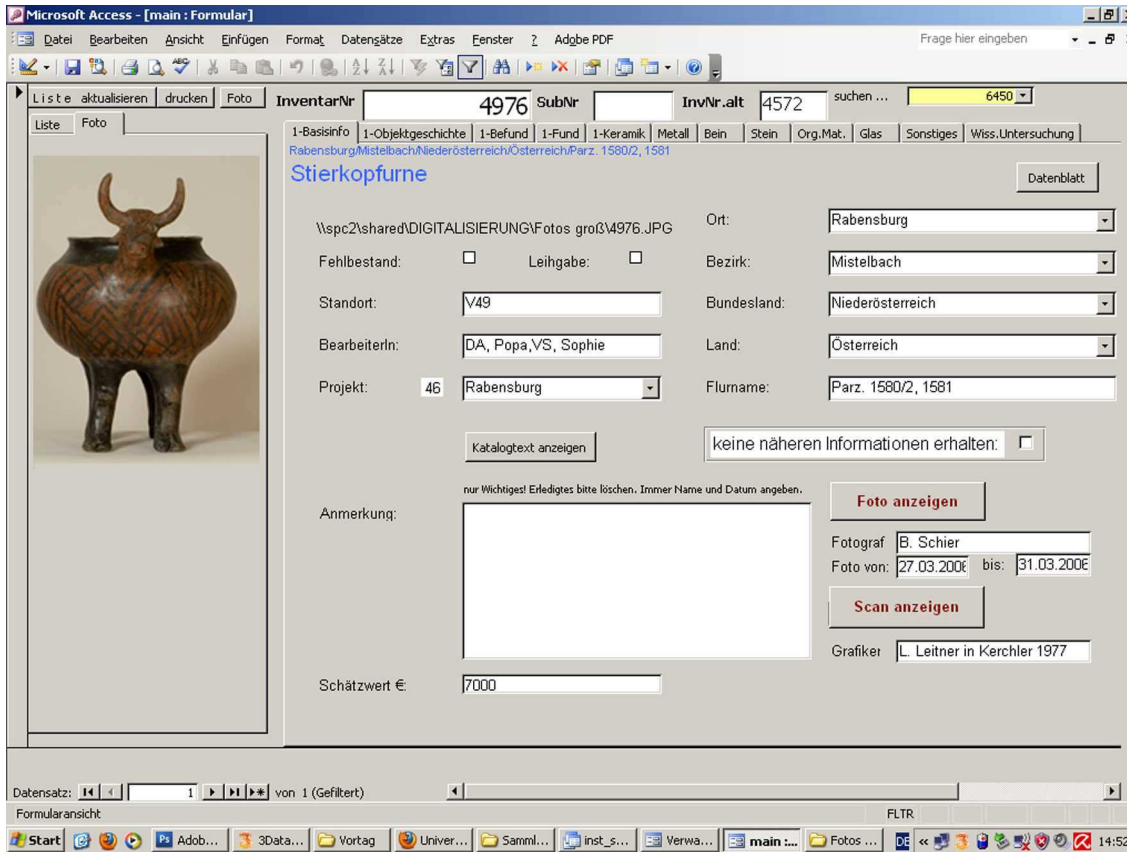


Fig. 5 – The first screen of our DB (Photo: B. Schier. © Institute of Pre- and Early-History, University Vienna).

## The Output

In 2006 we started publishing monthly reports about the progress and the status of the project "Digital Archiving of the Department Collection" on our *website* <http://ufgsammlung.univie.ac.at>. This site uses the standard University of Vienna tyop3 template. On the homepage you will find the results organized into the sections biographies, bibliography, study aids and the completed catalogues of subprojects like the pile dwelling settlement of Mondsee, the Gravettian of Willendorf, the Natufian of Mount Carmel in Israel (GARROD & BATE, 1937), and the Bronze Age of Giza in Egypt (KROMER, 1972).

We divided work on the objects in our collection into different subprojects. One subproject may consist of all artefacts belonging to the same site of discovery, the same source collection or a publication in the same scientific work. Each subproject is carried out by one staff member (Fig. 6). This includes the search for sources, the assessment of the condition of the relevant objects, entering the data, printing the catalogue, final revision and writing a report. Report, catalogue, statistic data and pictures are then uploaded to the homepage. These published inventories are available to everyone. So far more than 40 subprojects have already been finished.



Fig. 6 – Each staff member organises their own subproject (Photo: B. Schier, V. Reiter. © Institute of Pre- and Early-History, University Vienna).

Since 2008 we have arranged an *Open Day* in the collection twice a year. On this day objects illustrating a special topic are on exhibition. These artefacts are usually not on display but stored in cabinets. In this way the inventory is presented and rediscovered step by step.

### Education and Research

The archaeological inventory of the collection is used for *education* as well as *research*. Since its foundation in 1899 the objects have been used to teach students typology. Since 2007, Ass. Prof. Alois Stuppner has offered special courses in which students are able to gain practical knowledge in working with the collection's database. The students use an MS-Access interface to enter the data into a serverbased My-SQL database. Most of our current collection staff gained their first experiences this way.

For the annual drawing course we systematically select artefacts suitable for students who then learn how to draw archaeological objects. With the students' permissions these drawings are scanned in and added to the database and then exported to unidam.

The objects of the collection are extremely suitable for the analysis of raw materials in the field of *research*. The objects of the pile dwelling settlement of Mondsee are studied most often. These artefacts are more than 5,000 years old – produced in Ötzi the Iceman's time. In the 1870s they were retrieved from the lake of Mondsee by Matthäus Much (MUCH, 1872; MUCH, 1876). The remains from the Copper Age are especially suitable for different studies. In 2006 the raw material of the chert artefacts was analysed (BINSTEINER, 2006) and in 2008 the raw material of the stone axes was examined (GÖTZINGER, 2008; REITER, 2008). A

study concerning the copper artefacts is still in progress (OBEREDER et al., 1993). These include some of the oldest in the area of the Austrian Alps. Analysis of the animal bones and botanic remains of Mondsee helps reconstruct the environmental conditions of Ötzi's time.

## Exhibitions

It is possible to borrow special objects from the collection for exhibitions. These are mostly shown at regional exhibitions, in district museums, but also in international exhibitions primarily in Germany and France. At the moment some of our objects are on exhibition at the Money Museum of the Nationalbank in Vienna.

## Long-Term Data Storage

I hope I was able to give you an impression of our collection. I tried to compare the data sources of the past 100 years with the new digital data. The long-term goal of our project is to ensure that this data stays available for the next 100 years. In this case we have to think about how we can safely store the data (Fig. 7). We want to store it maintenance-free and modifiable after our current projects end. These considerations concern formats of data and mediums of storage. The easiest way to ensure the future availability of all entered information is to print the data on long-lasting paper in long-lasting ink.



Fig. 7 - We want to keep the data available for the next 100 years (Graphic [http://visual.merriam-webster.com/images/communications/office-automation/data-storage-devices\\_2.jpg](http://visual.merriam-webster.com/images/communications/office-automation/data-storage-devices_2.jpg), edited by V. Reiter).

## Translation

R. Hamon, S. Miljevic, C. Panzenböck, R. Reiter, V. Reiter, L. Schwarz.



## References

- Binsteiner, A. (2006). Das Silexinventar der Pfahlbausiedlung von See am Mondsee, Linzer Archäologische Forschungen, Sonderheft XXXV.
- Felgenhauer, F. (1965). Zur Geschichte des Faches "Urgeschichte" an der Universität Wien, Studien zur Geschichte der Universität Wien, Band III: 7 – 27.
- Franz, L. & Weninger, J. (1927). Die Funde aus dem prähistorischen Pfahlbauten im Mondsee. Anthropologische Gesellschaft in Wien und Wiener Prähistorische Gesellschaft (ed.), Materialien zur Urgeschichte Österreichs. Mit Beiträgen von E. Hofmann und F. Angerer. 3. Heft.
- Denscher, B. (1983). Humor vor dem Untergang, Wien: Österreichischer Bundesverlag.
- Garrod, D. & Bate, D. (1937). The Stone Age of Mt. Carmel I., Oxford.
- Götzinger, M. (2008). Die Steinrohstoffe der Mondseebeile in der Studiensammlung des Institutes für Ur- und Frühgeschichte an der Universität Wien, Archäologie Österreichs 19/2: 39 – 42.
- Kerchler, H. (1977). Die hallstattzeitlichen Grabhügel von Bernhardsthal, Rabensburg und Bullendorf, P. B. Mistelbach, NÖ. Eine Materialvorlage. Archaeologica Austriaca Beiheft 15.
- Knoch, L. (1966). Eine Mesolith-Station auf dem Bisamberg bei Wien, Museumsverein Lang-Enzersdorf (ed.), Rund um den Bisamberg - Ein Heimatbuch 3.
- Kromer, K. (1972). Österreichische Ausgrabungen in Giseh (Var). Vorbericht über die Frühjahrskampagne 1971, Sitzungsbericht der phil.-hist. Klasse der Österreichischen Akademie der Wissenschaften 279, 5. Abhandlung.
- Menghin, O. (1913). Die Neuaufrichtung der Sammlung Much, Urania Wochenschrift für Volksbildung VI Jahrgang Nr. 37.
- Much, M. (1872). Erster Bericht über die Auffindung eines Pfahlbaues im Mondsee, Mitteilungen der Anthropologischen Gesellschaft 2: 203 – 206.
- Much, M. (1876). Dritter Bericht über die Pfahlbauforschungen im Mondsee, Mitteilungen der Anthropologischen Gesellschaft 6: 165 – 194.
- Nigst, Ph., Viola, T. B. & Haesaerts, P. & Trnka, G. (2008). Willendorf II, in Venus 08 - Art and Lifestyle, Symposium Vienna 10. – 14. November 2008, Wissenschaftliche Mitteilungen aus dem Niederösterreichischen Landesmuseum 19: 31 – 58.
- Obereder, J., Pernicka & Ruttka, E. (1993). Die Metallfunde und die Metallurgie der kupferzeitlichen Mondsee-Gruppe, Ein Vorbericht, Archäologie Österreichs 4/2: 5 – 9.
- Reiter, V. (2008). Aktueller Forschungsstand der Mondsee-Funde in der Studiensammlung des Institutes für Ur- und Frühgeschichte der Universität Wien, Archäologie Österreichs 19/2: 33 – 38.