Guidelines for the curation of geological materials to be housed in the Geological Museum, Trinity College, Dublin

Introduction

This is a brief guide which outlines how geological material should be curated by students and researchers before it is lodged in the TCD Geological Museum. The Museum houses minerals, rocks and thin-sections, and fossils and each of these groups are catalogued separately.

It is important to curate material as fully as possible and to provide adequate documentation with the collection. This documentation can be as important as the material itself. A collection which is well curated is considerable more important and scientifically useful than a collection for which documentation is non-existent or lost. The former will be useful to researchers in the future.

In the past it was not unusual at the completion of writing a Ph.D. thesis, mapping report, or scientific paper to fail to submit the specimens on which the written reports were based. However, these specimens constitute a critical part of the research and must be submitted before, or at the same time, as the text.

Students should number, catalogue and curate their specimens, place them in suitable storage trays or boxes and hand them to Patrick Wyse Jackson. Talk with Patrick about appropriate storage containers. Students should also submit an electronic version of their catalogue, which should also be printed out and added as an appendix to their Ph.D. thesis, mapping report or laboratory project. As agreed at the Staff Meeting on 30 May 2013 such work submitted without handing in your specimens and without such a catalogue will not be accepted.

The documentation (where possible) that is required with all specimens is:

1) Accession number.
2) Identification of specimen as far as possible.
3) Geological Horizon: giving complete stratigraphic details including formation name, stage name and geological period (if possible).
4) Locality information (as detailed as possible including Grid Reference or GPS coordinates).
5) Field Number or Personal code (if applicable).
6) Collector’s name and date.
7) Name of person who identified specimen.
8) Details of publication if a type, figured or referred specimen.

Numbering and curating specimens takes care and time, so please build this into your work plan. If you have any questions about curation or storage of your specimens talk with Patrick before embarking on this.
Petrological (rock) specimens

- The prefix used is ‘P’ followed by the accession number.

From the student mapping projects all the thin sections and a small off-cut of the rock are kept. If the rock type is rare or very interesting scientifically all available material will also be kept (ask your supervisor to advise about this).

Rock specimens should be labeled with the P number inked onto a small white painted rectangle. This should then be sealed with varnish.

Thin sections should be numbered with the same number as the off-cut. This number should be written on the thin section label and also engraved onto the reverse using a diamond-tipped ‘pen’. Ideally geographic and stratigraphic information should be written on the label.

Petrological hand-specimens and thin-sections are catalogued in the Petrological Catalogue in following way:

<table>
<thead>
<tr>
<th>Status</th>
<th>TCD number</th>
<th>Rock Identification</th>
<th>Geographical location and Grid Reference</th>
<th>Collector and date</th>
<th>Collector’s field number</th>
<th>Determined by</th>
<th>Publication</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>P</td>
<td></td>
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</table>

Palaeontological (fossil) specimens

- The prefix used is ‘TCD.’ followed by the accession number.

Palaeontological specimens fall into several categories: macro-, micro-, palynological specimens, specimens mounted on SEM stubs, thin-sections, and vitrinite/coal blocks, and should be treated in different ways.

A. Palynological slide with individually numbered spores.
B. Cavity slide with one specimen per cavity individually numbered.
C. Cavity slide with numerous microfossils. One number for slide.
Fossils are catalogued in the Palaeontological Catalogue in following way:

<table>
<thead>
<tr>
<th>Status</th>
<th>TCD number</th>
<th>Identification</th>
<th>Biological Group</th>
<th>Geological horizon</th>
<th>Geographical location &amp; Grid Reference or GPS</th>
<th>Collector and date</th>
<th>Determined by</th>
<th>Publication</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCD</td>
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**Mineral specimens**

- The prefix used is ‘M’ followed by the accession number.

Minerals are labeled directly on the specimen or on the matrix in which they are found. The number should be inked onto a small white rectangle and then sealed with varnish. Alternatively a small card label can be glued on – however over time many glues fail and such labels fall off. Tiny specimens should be kept in a plastic or glass tube which should be numbered. Thin sections of minerals should be numbered by writing on the thin section label and also engraving the number onto the reverse using a diamond-tipped ‘pen’. The label should also carry the name of the mineral and its geographic location.

Minerals are catalogued in the Mineralogical Catalogue in following way:

<table>
<thead>
<tr>
<th>Status</th>
<th>TCD number</th>
<th>Previous catalogue number</th>
<th>Mineral Identification</th>
<th>Geographical location and Grid Reference</th>
<th>Collector and date</th>
<th>Collector’s field number</th>
<th>Determined by</th>
<th>Publication</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCD</td>
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</tbody>
</table>

Please tell Patrick how many Petrological, Palaeontological and Mineralogical numbers you (or each undergraduate mapping pair) require. He shall then send you the relevant Excel template for you to fill in and return.

For further information or assistance please contact Patrick Wyse Jackson (wysjcknp@tcd.ie).

July 2013