Digitizing Chinese Rare Books and Manuscripts at the Bavarian State Library

CCDSCR 2016
European universal library and international research library

- 10 million volumes
- 63,000 current periodicals
- 1.1 million E-Books
- 97,000 manuscripts
- 20,000 incunabula
Duke Albrecht V
1558: court library of the house of Wittelsbach
• Bavarian rulers: support of Jesuit missionaries

• Chinese books came into the possession of the Bavarian court as gifts from missionaries

• Earliest Chinese book list dating 1618
Chinese Collection – 19th/20th century:

- Karl Friedrich Neumann, Guangzhou 1830/31: 3,500 vol.
- Onorato Martucci’s collection, purchased in 1851: 2,700 vol.
- Etienne Quatremère’s library, purchased in 1858: 2,000 Chinese and Manchurian works
- Georg Reismüller, purchasing journey in 1929: 18,500 vol.
• 230,000 volumes and 3,000 manuscripts

• Current acquisitions focus on the arts disciplines of pre-modern China

• Holdings supplemented by literature on China in non-Chinese languages
Full text digitization of Chinese books and manuscripts (2011-2015)

- financial support by German Research Foundation (DFG)
- 12,000 volumes 册 dating from the 17th century and earlier re-catalogued and fully digitized
- 1.1 million digital images
Including:

• approx. 20 Song and Yuan dynasty printings
• more than 100 Ming dynasty printings
• several thousand printed volumes from the Qing dynasty
• printings of Western missionaries in China
• 90 scrolls and sutra bindings (incl. 3 scrolls from Dunhuang)
First step: Restoration

Institute of Book and Manuscript Conservation (IBR) of the Bavarian State Library
Second step:

Digitization
Munich Digitization Center

• Scan process
• Quality control of every single image
• Capturing of structural metadata (table of contents)
Use of various digitization techniques, depending on size and material
潜确类书
Cooperation with the Leibniz Computing Center (LRZ, Munich): organisational and technical infrastructure for long-term archiving since 2004

Digital archiving software „Rosetta Digital Preservation System“ from ExLibris

Efficient and largely automated ingest and archiving of data as well as access to the data
Long-term preservation

Large electronic archive: 656 terabytes of data, more than 1.5 billion files (September 2016)

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Webaccess through:

- Digital Collections and Online Catalogue of the Bavarian State Library
- WorldCat
- Union Catalog of Chinese Rare Books (National Central Library, Taiwan)
- Virtual libraries
- Search engines (Google etc.)
歡迎進入巴伐利亞國家圖書館東亞數字資源庫！

這裏，您可以欣賞到圖書館收藏的中文、日文和韓文等多種文字的古籍資料。收錄的典籍從七世紀一直跨越至十九世紀。您可以選擇以下兩種檢索方式，即任意詞檢索和高級檢索（見檢索幫助）。

目前，您可以瀏覽到980萬張圖片，未來，該數據還會持續增長。

http://eastasia.digital-collections.de
Digital East Asia Collections

http://eastasia.digital-collections.de

- Website in German, English, Chinese
- Two search modes: systematic search and simple search
- Simple search scans both bibliographical data as well as tables of content
- Use of zoom technology
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<thead>
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Year of Publication

<table>
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Period of publication | 15 | 1524

10 hit(s) in 0.031 sec.

1. **Wen xian tong kao (文献通考)**: 1
Ma, Duanlin (ca. 1254 - ca. 1323) - Ying xu zhai (映旭齋) - Vonwort 1524 (嘉靖三年序, 嘉靖刊本)

2. **Wen xian tong kao (文献通考)**: 2
Ma, Duanlin (ca. 1254 - ca. 1323) - Ying xu zhai (映旭齋) - Vonwort 1524 (嘉靖三年序, 嘉靖刊本)

3. **Wen xian tong kao (文献通考)**: 3
Ma, Duanlin (ca. 1254 - ca. 1323) - Ying xu zhai (映旭齋) - Vonwort 1524 (嘉靖三年序, 嘉靖刊本)

4. **Wen xian tong kao (文献通考)**: 4
Ma, Duanlin (ca. 1254 - ca. 1323) - Ying xu zhai (映旭齋) - Vonwort 1524 (嘉靖三年序, 嘉靖刊本)

5. **Wen xian tong kao (文献通考)**: 5
Ma, Duanlin (ca. 1254 - ca. 1323) - Ying xu zhai (映旭齋) - Vonwort 1524 (嘉靖三年序, 嘉靖刊本)
唐類函

蘭居重訂

養正堂藏版

[Image: Chinese historical document]
<table>
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<th>Yu, Anqi &lt;ca. 1551-ca. 1618&gt; (俞安期); Xu, Xianqing &lt;js 1568&gt; (徐顯卿)</th>
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• feng mian (封面) | qian 'fei zhai' tian lu ge tu shu 'yin (亭表查' 天謨圖書' 印)
• xu (序)
• fan li (凡例)
• mu lu (目錄)
• tian bu, juan 1 zhi juan 2 (天部, 卷一至卷二)
  ◦ juan 3 zhi juan 5 (卷三至卷五)
• sui shi bu, juan 6 zhi juan 7 (時部, 卷六至卷七)
  ◦ juan 8 zhi juan 11 (卷八至卷十一)
• di bu, juan 12 zhi juan 13 (地部, 卷十二至卷十三)
  ◦ juan 14 zhi juan 16 (卷十四至十六)
  ◦ juan 17 zhi juan 20 (卷十七至卷二十)
• di wang bu, juan 21 zhi juan 24 (帝王部, 卷二十一至卷二十四)
Tang lei han
Yu, Anqi <ca. 1551-ca. 1618> (命安期); Xu, Xianqing <js 1568> (徐顯卿) - Platten 1603; Abzug 1618

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All digitised images are freely accessible online
Images available as JPGs with 72 dpi. Free PDF download is possible. TIFs (300 dpi) can be provided e.g. for reproductions.

Relaunch in 2017, using IIIF technology (International Image Interoperability Framework)

The website also contains digitized versions of Chinese and Japanese printings from the 18th and 19th century, created in cooperation with Google.
Public-Private-Partnership with Google

- Since 2007: more than 1 million copyright-free volumes (dating from the 17th to the 19th centuries) digitized by Google
- Among these: several thousand Chinese volumes and a significant number of Western titles on East Asia
Digitization by Google

Google Digital Copy

Library Digital Copy
Two pillars:

- **Inhouse digitization (Munich Digitization Center):**
  manuscripts, incunabula, printings of the 16th century, all other old and valuable items

- **Public-Private-Partnership with Google:**
  copy-right-free printings of the 17th, 18th and 19th century
1.2 million digitized volumes:

- 1 million digitized by Google
  (among these ca. **15,000 Chinese volumes** dating from the 17th to the 19th century)

- 200,000 digitized by the Munich Digitisation Center
  (among these ca. **12,000 Chinese volumes** dating from the 17th century and earlier)
The majority of out-of-copyright Chinese titles (works published before 1875) of the Bavarian State Library are fully digitized and freely accessible online.
Challenges:

- improvement of visibility
- integration into established and widely used search environments
- ensuring long-term preservation
Thank you!

tabery@bsb-muenchen.de