Gained in the Translation
The Geological Career of Lou Henry Hoover
1894-1914

Michele L. Aldrich
California Academy of Sciences
Topics covered

• Stanford education 1894-98
• China 1899-1901
• London 1902-1914
• De Re Metallica 1906-1913
• Bascom comparison
Stanford Geology Courses, 1894 – 1897

Dynamic and Structural Geology
Economic Geology
Topographic Geology
Mineralogy
Adv. Mineralogy & Petrography
Paleontology: Systematics & Historical Geol.
Paleontology: Original work in field & lab
Assaying
Special Courses

Source: Stanford Univ. Catalogues
SYLLABUS OF LECTURES

ON

ECONOMIC GEOLOGY

BY

JOHN C. BRANNER

AND

JOHN E. NEWSOM

PACO ALTO, CALIFORNIA
STANFORD UNIVERSITY PRESS
1907
Economic Geology Topics Relating to Chinese Porcelain

- Geology and Art
- Feldspars
- Mineral Pigments
- Kaolin and Clays

Lou and Bert’s Wedding, 1899
and to us, seemingly as cheaply, as one man. So there were three or four Chinese mining officials, Mr. H. & Mr. Hoo Yoke and Hoo Sung, by the way — and I am Hoo Loo. 

Two interpreters, half a dozen personal servants, majors, guards, etc., and their absent wives from 12 to 20 soldiers. Some forty-five, fifty, a score and a half, help things to move along. They took any amount of baggage — mattresses and such other little luxuries. And every sort of canned, jamed, or bottled provisions — with a "foreign" look, which means a Chinese who cooks foreign dishes. One man at the office here asked if they were sure they had everything they wanted, so he namely told Mr. Hoover "because you are a very fine man, we can't afford to have you get sick." They returned the first of June for six or eight weeks, when Mr. Hoover and I take command of another expedition. 

With kindest remembrances to the Branner and the children.

Fresno, May 12 —

Sincerely,

[Signature]
Lou in China, 1900
John Milne in London, ca 1910
PRINCIPLES OF MINING

VALUATION, ORGANIZATION
AND ADMINISTRATION

COPPER, GOLD, LEAD, SILVER, TIN AND ZINC

BY

HERBERT C. HOOVER

Member American Institute of Mining Engineers; Mining and Metallurgical
Society of America, Société des Ingénieurs Civils de France,
Fellow Royal Geographical Society, etc.

First Edition
Sixth Impression

McGRAW-HILL BOOK COMPANY, Inc.
239 WEST 39TH STREET. NEW YORK

LONDON: HILL PUBLISHING CO., Ltd.
6 & 8 BOUVIER ST., E. C.
1909
Lou and Sons, born 1903 and 1907
Lou and Bert on Shipboard, 1928
GEORGIIUS AGRICOLA

DE RE METALLICA

TRANSLATED FROM THE FIRST LATIN EDITION OF 1556
with
Biographical Introduction, Annotations and Appendices upon
the Development of Mining Methods, Metallurgical
Processes, Geology, Mineralogy & Mining Law
from the earliest times to the 16th Century

BY

HERBERT CLARK HOOVER
A. B. Stanford University, Member American Institute of Mining Engineers,
Mining and Metallurgical Society of America, Société des Ingénieurs
Civils de France, American Institute of Civil Engineers,
Fellow Royal Geographical Society, etc., etc.

AND

LOU HENRY HOOVER
A. B. Stanford University, Member American Association for the
Advancement of Science, The National Geographical Society,
Royal Scottish Geographical Society, etc., etc.

Published for the Translators by
THE MINING MAGAZINE
SALISBURY HOUSE, LONDON, E.C.
1912
De Re Metallica Editions

*Agricola, 1556*
- Liber XII in Latin
- Preface
- Title page in Latin
- Dedicatory poem
- 262 woodcuts
- No break between libera
- No annotation
- Paragraphs by spacing between words
- De animantibus subteraneis, 33 p.
- Decorative initial begins each liber
- No bibliography
- Indexes
- Leather binding (Lib. Cong. & Penn State)

*Hoovers, 1912*
- 12 books in English
- Preface and translator's preface
- Facsim. tp with pub. name whited out
- Facsimile of dedicatory poem
- 261 woodcuts, some line figs redrawn
- Each book starts on a new page
- Extensive annotation Paragraphing by indentation
- Not included
- Not included
- Same initial begins each book-English
- Bibls. of GA’s and other mining books
- Indexes
- Vellum (imitation?) binding
GEORGII AGRICOLAE
DE RE METALLICAE LIBRI X
bus Officiis, Instrumenta, Machine, ac omnii in exitu ad Metallis
cae spectantia, non modo inclementiim decribuntur, sed & per
effigies, suis locis incriptae, adiunctis Latinis, Germanicis, appell
ationibus ut ob oculos ponuntur, ut clarius tradit non pollint.

E I V S D E M

DE ANIMANTIBVS SVE TERRANEIS Liber, ab Autorer

cognitum. Indicibus diversis, quicquid in opere tractatum est,
pulcher demonstratur.

F R O B E N

B A S I L E A E  M D L V I

Cum Privilegio Imperatoris in annos v.
& Galliarum Regis ad Sexennium.
Agricola
Chapters in Agricola’s *De Re Metallica* (1556)

Mining as an industry and comparison to other trades.  
Ancient mines, finding metals and minerals, diving rod.  
Mineral veins and seams; plotting with the compass.  
Determining mine boundaries; mining organization.  
Principles of mining; mine surveying.  
Tools and equipment, hoisting and pumps, ventilation, miners’ diseases.  
Assaying ores and metals; the touchstone.  
Preparing ores: roasting, crushing, washing; recovery of gold by mercury.  
Ores and furnaces and bellows for smelting copper, iron, and mercury  
Recovering precious metals from base metals; separation by acid.  
Recovery of silver from copper by liquefaction; refining copper.  
Salts, solvents, precipitation, bitumen, and glass.

DRM (1556) left; DRM (1912) right
BOOK I.

ANY persons hold the opinion that the metal industries are fortuitous and that the occupation is one of sordid toil, and altogether a kind of business requiring not so much skill as labour. But as for myself, when I reflect carefully upon its special points one by one, it appears to be far otherwise. For a miner must have the greatest skill in his work, that he may know first of all what mountain or hill, what valley or plain, can be prospected most profitably, or what he should leave alone; moreover, he must understand the veins, stringers\(^1\) and seams in the rocks\(^2\). Then he must be thoroughly familiar with the many and varied species of earths, juices\(^3\), gems, stones, marbles, rocks, metals, and compounds\(^4\). He must also have a
Typical Woodcut from DRM
Property of
David F. McFarland

Received as a gift
From Mr. Thomas
of Burnham, Pa.

June 1st, 1923.

And to Good Wishes of

[Signature]
## Career Comparison

<table>
<thead>
<tr>
<th>Florence Bascom</th>
<th>Lou Henry Hoover</th>
</tr>
</thead>
<tbody>
<tr>
<td>1867 born in Massachusetts</td>
<td>1874 born in Iowa</td>
</tr>
<tr>
<td>Father a college professor</td>
<td>Father a banker</td>
</tr>
<tr>
<td>Mother teacher, suffragist</td>
<td>Mother a homemaker</td>
</tr>
<tr>
<td>1874 family moved to Wisconsin</td>
<td>1887 family moved to California</td>
</tr>
<tr>
<td>1884 Bach. Degree in science, U. Wisc.</td>
<td>1890-3 LA/San Jose Normal Schools</td>
</tr>
<tr>
<td>1884-5 taught Hampton Institute</td>
<td>1893 taught elem. school, Monterey</td>
</tr>
<tr>
<td>1885-7 studied sheet gabbros, L. Superior</td>
<td>1898 BA Stanford in geology</td>
</tr>
<tr>
<td>1887 MA Univ Wisc in geology</td>
<td>1899 married Herbert Hoover</td>
</tr>
<tr>
<td>1893 PhD Johns Hopkins Univ in geology</td>
<td>1902-1914 London base, world travel</td>
</tr>
<tr>
<td>1893-95 Ohio State U, assoc. in geology</td>
<td>1906-1912 translates De Re Metallica</td>
</tr>
<tr>
<td>1895-1928 Chair, Bryn Mawr geo. dept.</td>
<td>1914-1917 Belgium relief work</td>
</tr>
<tr>
<td>1906 sabbat, Heidelberg petrography</td>
<td>1928-1932 First Lady</td>
</tr>
<tr>
<td>Unmarried, no children</td>
<td>1903 and 1907, children born</td>
</tr>
<tr>
<td>1944 died in Massachusetts</td>
<td>1944 died in New York City</td>
</tr>
</tbody>
</table>

Source: *Amer. Natl. Bio.* articles by Champlin and Mayer; see refs. list
Thanks to:

- M. Tymoczko, Comp. Lit., U Mass
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- Prints & Photos, Rare Books, and Leroy Bell, Library of Congress
- Rare Books Library, Penn State
- Archives, Stanford University
- Leo Laporte, Univ. Calif. Santa Cruz
Lou Henry Hoover: References


Agricola, Georgius, 1556, De re metallica libri XII: quibus officia, instrumenta, machinae, ac omnia denique ad metallicam spectantia, non modo luculentissim describuntur, sed & per effigies, suis locis insertas, adiunctis latinis, Germanicisque appellationibus ita ob oculos ponuntur, ut clarius tradi non possint; eiusdem De animantibus subterraneis liber / ab autore recognitus; cum indicibus diuersis, quicquid in opere


______ and Lou Henry Hoover, 1912, Georgius Agricola De re metallica, translated from the 1st Latin edition of 1556, with biographical introduction, annotations and appendices upon the development of mining methods, metallurgical processes, geology, mineralogy and mining law, from the earliest times to the 16th century. London: The Mining Magazine, 640 p.


Montgomery, Scott, 2000, Science in Translation: Movement of Knowledge


Michele Aldrich
May 2007