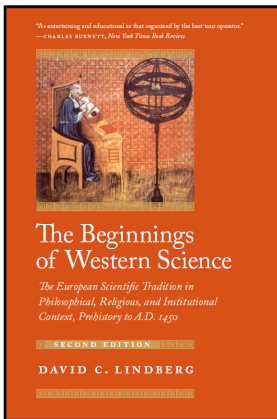


Astrolabes, Arms, and Azulejos: Medieval Science, Technology, and Material Culture

Texts and Readings

Fall 2012



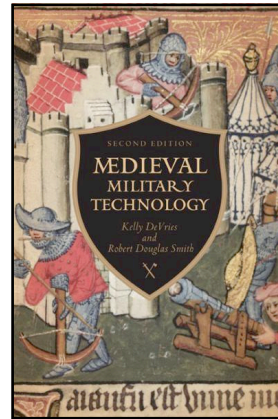
Lindberg, David C.
The Beginnings of Western Science: The European Scientific Tradition in Philosophical, Religious, and Institutional Context, Prehistory to A.D. 1450.

Chicago: University of Chicago Press, 2008.
ISBN-13: 978-0226482057.



Saliba, George.
Islamic Science and the Making of the European Renaissance.

Cambridge: The MIT Press, 2007.
ISBN-13: 978-0262195577.

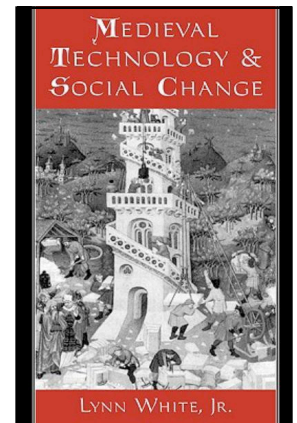


Devries, Kelly and Robert Douglas Smith.
Medieval Military Technology.

Toronto: University of Toronto Press,
2012. ISBN-13: 978-1442604971

White Jr., Lynn.
Medieval Technology and Social Change.

Oxford: Oxford University Press,
1966. ISBN-13: 978-0195002669



Key Information

Overview

During the Middle Ages an amazing transfer of knowledge occurred between Islamic and Christian societies in the areas of science, technology, ideas, mechanics, and material culture. Islamic sciences were particularly impressive under the Abbasid Caliphate of Baghdad where robotics and steam engines were contemplated. During the early medieval period, European struggled to keep pace with Islamic civilization, but by the late Middle Ages they began to develop comparable & more advanced technologies, such as mechanical power. In sum, this course investigates the medieval scientific & technology developments that were made possible via Christian & Islamic competition and cooperation.

My Teaching Approach

My approach focuses on three elements: personal best efforts, improvement, and

engagement. Although I must evaluate your work in relationship to your peers, I am most interested in your personal effort to do your best. I absolutely take into consideration your improvement over time and the level of effort you dedicate to your work.

Four Requirements

- **Attend all class meetings and participate regularly.** Two or more unexcused absences are grounds for an automatically failure in the course. Always attempt to contact me via email if you will be missing class.
- **Complete all assignments on time and per instructions.** Always ask questions if you are unclear about an assignment. Late work is not accepted.
- **Abide by the university's Student Code of Conduct.** For specifics see: <http://www.uccs.edu/oja/student-conduct/student-code-of-conduct.html>

- **If you have a disability for which you are requesting an accommodation,** you are encouraged to contact Disability Services (DS) within the first week of classes. DS is located in Main Hall 105.

People, Places, Times

- **Dr. Roger L. Martínez, Asst. Professor,** Dept. of History, Columbine Hall 2046, ph 719.255.4070, rmartin8@uccs.edu Office Hours: Wed 12-1:30, 4:30-6 pm

- **Class Meetings:** Tue, 1:40-4:20 pm
Dwire Hall 333

- **Course handouts, reading packet, and grades posted on UCCS BlackBoard**



- **Follow class updates at Twitter**
[@uccshist4150](https://twitter.com/uccshist4150)



Locating the Medieval World

Aug 21 - Course Introduction:

The Emergence of the Medieval World:

From Rome to Three Sibling Cultures - Western Europe, Byzantium, and the Islamic World.

Aug 28 - Origins of Christian and Islamic Science

Read All: Lindberg, Chpts. 7 and 8

View: NOVA's Medieval Siege

Submit: One page of book notes.

Sep 4 - Labor Day Holiday

Begin Your Research Project

Sep 11 - Initial Library Research Session (Finding online and print sources)

Meet: EPC (Library) Room 239

Skim Text: Skim textbooks and library books placed on reserve to identify a research topic for your project.

Submit: Research Project Task #1: One-page description of your potential topic and page references from the books noted above.

Islamic Developments & Diffusion

Sep 18 - Science in Islam: "Why?", Astronomy, and Cultural Heights

Read All: Saliba, Chpt 2.

Skim Text: Saliba, Chpt. 1 and 3

View: Cities of Light: The Rise and Fall of Islamic Spain

Submit: One page of book notes.

Sep 25 - Islamic Engagement with Christian Europe

Read All: Saliba, Chpt. 6 (The Copernican Connection) and "The Invention of the Counterweight Trebuchet: A Study in Cultural Diffusion" - article posted on BlackBoard

Presentation: UCCS Historical Engineering Society

Submit: One page of book notes.

European Ignition & Change

Oct 2 - Revival, Growth, and The Cosmos

Read All: Lindberg, Chpts. 9, 10, and 11

Submit: One page of book notes.

Submit: Research Project Task #2: Two-page discussion of your research topic and a preliminary bibliography.

Oct 9 - Technology and Social Change

Read All: White, Jr.

View: NOVA's Building the Great Cathedrals

Submit: One page of book notes.

Oct 16 - Medieval Military Technology

Read Selections: From Devries and

Douglass Smith's text, please read Part I: Arms and Armor (Read only one: Chpt. 1, 2, or 3); Part II: Artillery (Read only one: Chpt. 4, 5, or 6); Part III: Fortifications (Read only one: Chpt. 7, 8, 9, or 10); and Part IV: Warships (Read either Chpt. 11 or 12).

Submit: One page of book notes.

Cultural Crossroads

Oct 23 - A Crossroads of Medicine and Material Culture

Read All: Lindberg, Chpt. 13.

Read 2 of the 4 Articles: "Why Europe Responded to the Muslims' Medical Achievements in the Middle Ages"; "Silk Economics and Cross-Cultural Artistic Interaction: Byzantium, the Muslim World, and the Christian West"; "Two Hispano-Islamic Silks", "'Vivre Noblement': Material Culture and Elite Identity in Late Medieval Flanders" - articles posted on BlackBoard

Submit: One page of book notes.

Individual Research Projects

Oct 30 - Intensive Library Research Session (Identifying Speciality Sources)

Meet: EPC (Library) Room 239

Submit: Research Project Task #3: Identifying Specialty Sources Pre-Worksheet

Nov 6 - Independent Research

Nov 13 - In-Class Discussion of Your Research Project and How to Prepare Your Presentation

Submit: Research Project Task #4: Initial Findings Report

Nov 20 - Independent Research

Nov 27 - Task #5: Research Project Presentations

Dec 4 - continued - Task #5: Research Project Presentations and Medieval Fair

Dec 11 - No Class.

Submit: Research Project Task #6: Final Project

Assignments & Grades

- **First Day Quiz:** We will have a quiz on the first lecture. 5% of total course grade.
- **Book Notes.** You will submit one-page of book notes for each week's readings. In total, you will submit seven sets of notes. You will receive credit or no credit for each set of notes. Notes are due in class. Each set will account for 5% of your grade (all sets equal to 35% of total course grade).
- **Research Project:** You will prepare a 10-12 page research project on one type of medieval technology, science, or material cultural process. You will deliver a presentation as well. Lastly, you are encouraged to submit personal drawings and schematics, make physical prototypes or models, and/or deliver a "demonstration". For this extra work you may earn up to 10 bonus points on your final research project.

Task #1: One-page description of your topic (5% of total course grade).

Task #2: Two-page discussion of topic and preliminary bibliography (5% of total course grade).

Task #3: "Identifying Specialty Sources" Pre-Worksheet (5% of total course grade).

Task #4: Initial Findings Report (5% of total course grade).

Task #5: Deliver a 15 to 20-minute presentation on your research project. (15% of total course grade).

Task #6: Final Project (25% of total course grade).