

LECTURE 1: Introduction, History of Technology and its Sources

techne/technai = art or skill

mechane/mechanai = device, machine, stratagem

organon/organa = device, tool

technichus = expert in something (not necessarily technical)

daidalos or *artificiosus* = involving clever handiwork (often art work)

opifex = “craftsman”

scientia machinalis = “mechanical engineering”

peritus operum hydraulicorum = “hydraulic engineer”

Greek *technologia* = “systematic description of a skill”

Science: a systematization of observed facts, from inductive processes (from particular to general), which has a universal validity.

1) Literary Sources.

A) Specifically technical handbooks.

Agriculture: Cato (200 BC), Varro (1C BC), Columella (1C), Palladius (4C).

Architecture and surveying: Philo of Byzantium (3C BC), Vitruvius (25 BC), Gromatici (varied), Hyginus Gromaticus (2C).

Haut cuisine: Apicius (1C).

Hunting and fishing: Xenophon (4C BC), Grattius Faliscus (1C BC), Oppian (100).

Demonstration gadgets: Philo of Byzantium (3C BC), Heron (1C).

Urban water supply: Frontinus (1C).

Veterinary medicine: Palladius (4C).

Warfare: Xenophon (4C BC), Apollodorus (100); Onasander (1C), Arrian (2C), Polyaeus (2C), Anonymus *De Rebus Bellicis* (375), Vegetius (4C)

Our Hero!! Pliny the Elder (23/24-79), *Historia Naturalis*, = *Natural History* = *The World and its Relation to Human Culture*.

B) Inscriptions and papyri.

C) Casual mention of process in a literary work.

2) Archaeological remains.

A) Objects produced, production by-products, tools of production.

B) Remains of production installations or machinery.

C) Visual representations of procedures, personnel, tools.

3) Laboratory recreation of techniques. “Experimental archaeology.”

4) Ethnographic parallels