

HISTORY OF PHARMACY AND DEONTOLOGY

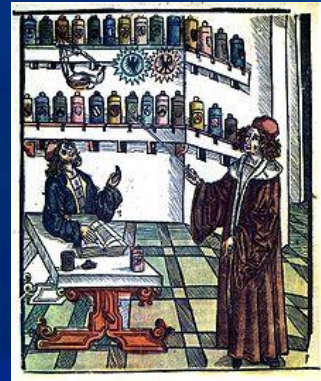




History

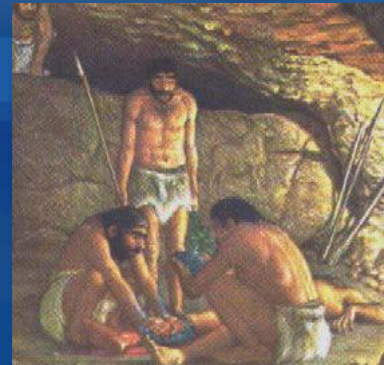
History of science

History of pharmacy



Chronological Steps of History of Pharmacy

1. Instinctive (individual) period
2. Mystical period
3. Religious period
4. Empirical period
5. Modern period



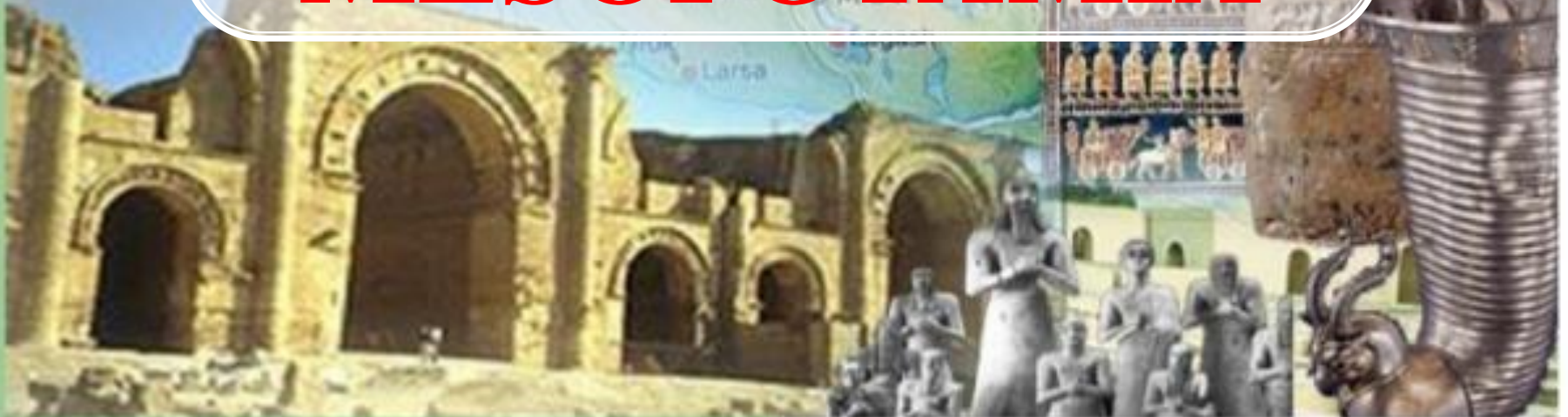
❖ The theme of Pharmacy and Health are covered with pieces of extreme quality entries from civilizations and cultures so distant in time and space, like Mesopotamia, Egypt, Greece, Rome, the Incas, the Aztecs, Islam, Tibet, China, Japan and Europe.

- ❖ Most of the studies show that the first medicine and pharmacy practices were started in Mesopotamia.
- ❖ Also there are some studies that stated the Antient Egypt or China were first.

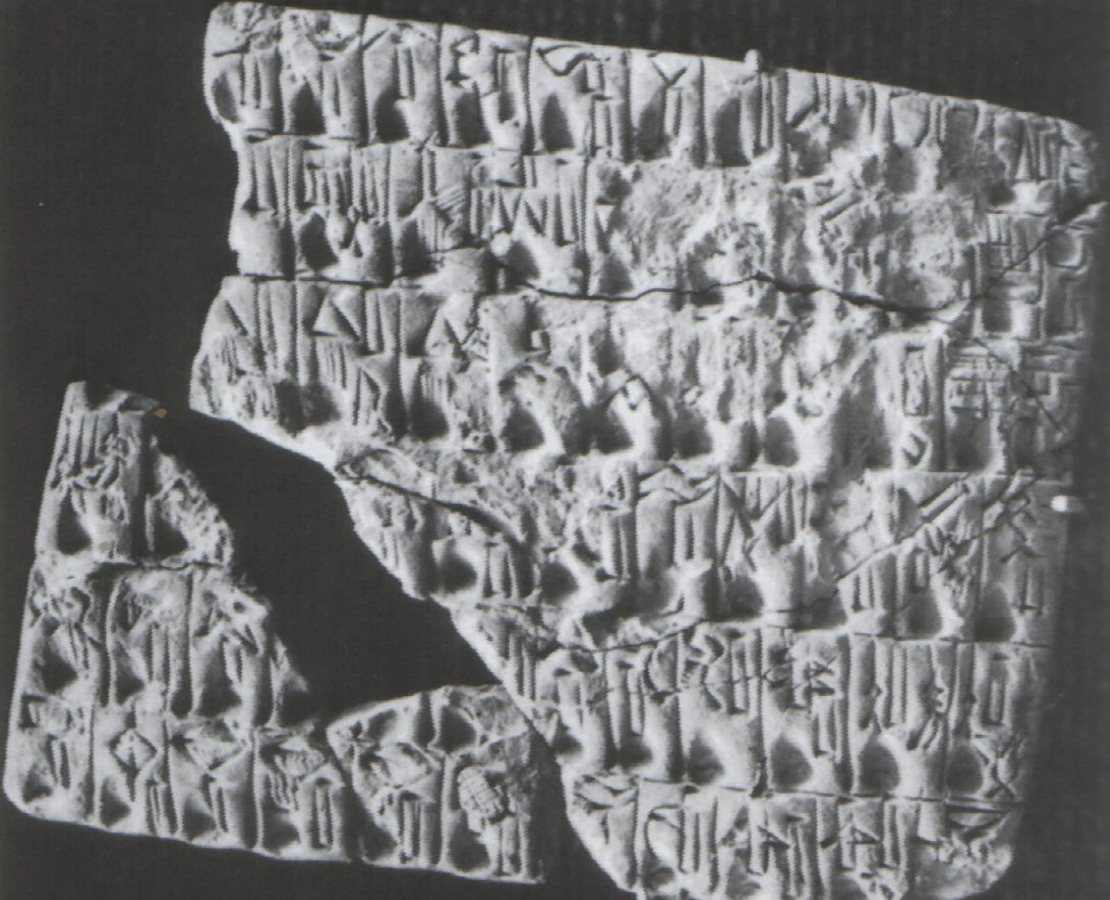
Mesopotamia

The Land Between the Rivers

PHARMACY PRACTICES IN MESOPOTAMIA



- ❖ Practitioners of healing of this era were priest, pharmacist and physician, all in one. Medical texts on **clay (cuneiform) tablets** record first the symptoms of illness, the prescription and directions for compounding, then an invocation to the gods.



Mesopotamian Concepts of Disease and Healing

- ❖ Rituals to remove the evil spirits out of the body. In these rituals, spirits were blamed, magic was made. The evil spirits were tried to be escaped by frightening.
- ❖ Each spirit or god was held responsible for only one disease.
- ❖ The first tradition of packaging and sealing of drugs began in Mesopotamia.

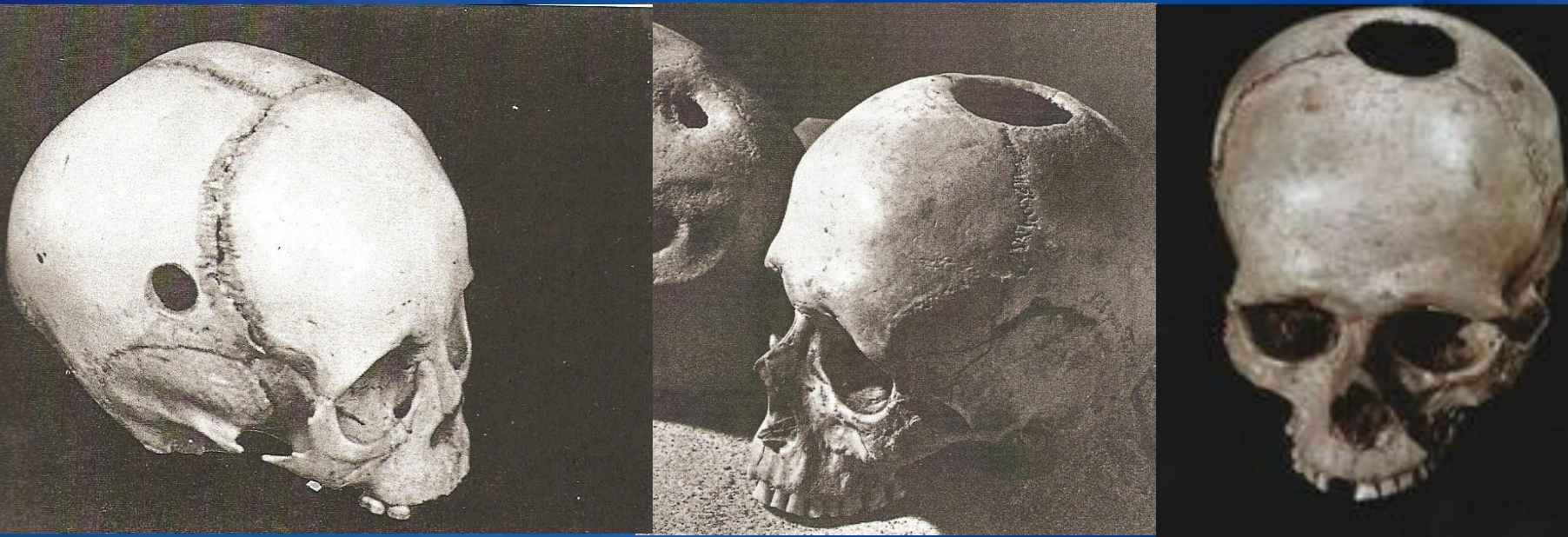


Mesopotamian Concepts of Disease and Healing

- ❖ It was recognized that various organs could malfunction, causing illness.
- ❖ The plants used in treatment were to treat symptoms of the disease, and weren't given for magical purposes.

Trepanation: The History of One of the World's Oldest Surgeries

The practice of drilling or scraping a hole into the skull's cranial vault to treat brain injuries and banish evil spirits is called trepanation.





The types of medical practitioners in Mesopotamia

- ❖ Priest physicians
 - ❖ Ashipu
 - ❖ Asu
 - ❖ Ninazu
 - ❖ Ningiszhida (God of Healing)
 - ❖ Baru
- ❖ Surgeons
- ❖ Herbalists
- ❖ Gods

Ningishzida



Ningishzida is represented by a double snake wrapped around a stick

The Sumerian ruler Gudea accepted Ningishzida as his own protective deity (a personal god) and wrote to him that he had seen it in a dream. The symbol of the two snakes, wrapped in a wand (tree) on the vase above, is one of the oldest examples in history.

Today, snake symbolizes health, regeneration or immortality.

Gilgamesh wants to learn the secret of immortality. Only a single person on earth can help him, the wise Ut-Napestim, the survivor of the flood, whom the gods give immortality. He tells Gilgamesh that there is a thorny weed at the bottom of the ocean. This plant will not give him immortality, but will grant eternal youth and good life. Gilgamesh ties a stone to his foot and dives to the bottom of the sea. After finding this plant, he takes a branch from it, dissolves the stones and rises to the surface. A snake that smells the plant swallows it. The snake that swallows the plant changes its old skin and takes on the new one.

Today, the symbolism of health, renewal or immortality of snake comes from this story. With this story, the snake who eats the plant and changes its skin has been considered immortal



Diagnosis Methods in Mesopotamia

Hepatoscopy, which is now described as a kind of fortune, was used as a medical method in Mesopotamia. It was based on the examination of parts of the liver, that is, the parts of the liver that appear to be the place where life was gathered, and the search for signs of health of the person.



Treatment methods in Mesopotamia

❖ Spiritual Methods

- ❖ Spells/Magics
- ❖ Rituals
- ❖ Sacrifices

❖ Empirical Methods

- ❖ Surgery
- ❖ Treating fractures
- ❖ **Pharmaceuticals**
- ❖ Delivery
- ❖ Empathy and encouragement

Recipes in Mesopotamia

- ❖ The symbol of the **Marduk** (the god of sun) «**Rx**» was firstly used by physicians in Mesopotamia.



- ❖ Recipes that only advice *magic* and *spells* in treatment
- ❖ Besides magic, recipes including various *drugs*

Different recipe examples

- ❖ Recipes containing unreported drug compounds to be used against in which disease,
- ❖ Recipes including single pharmaceutical preparation against a single disease,
- ❖ Recipes for various drug compounds against a single disease,
- ❖ Recipes for many pharmaceutical compositions against a variety of diseases,
- ❖ Recipes for pharmaceutical compositions used for not getting a particular disease.

Health Education in Mesopotamia

- ❖ Health education was given in temples for gods, called as *Ziggurat*.



Health Codes

- Health codes was written by Hammurabi (the King of Babylon) in B.C. 2000.
- The codes of Hammurabi represent the first laws of world history.
- 282 articles in it and it was written on stone blocks.
- Now it is in the Museum of Louvre in Paris.

Law Code of Hammurabi

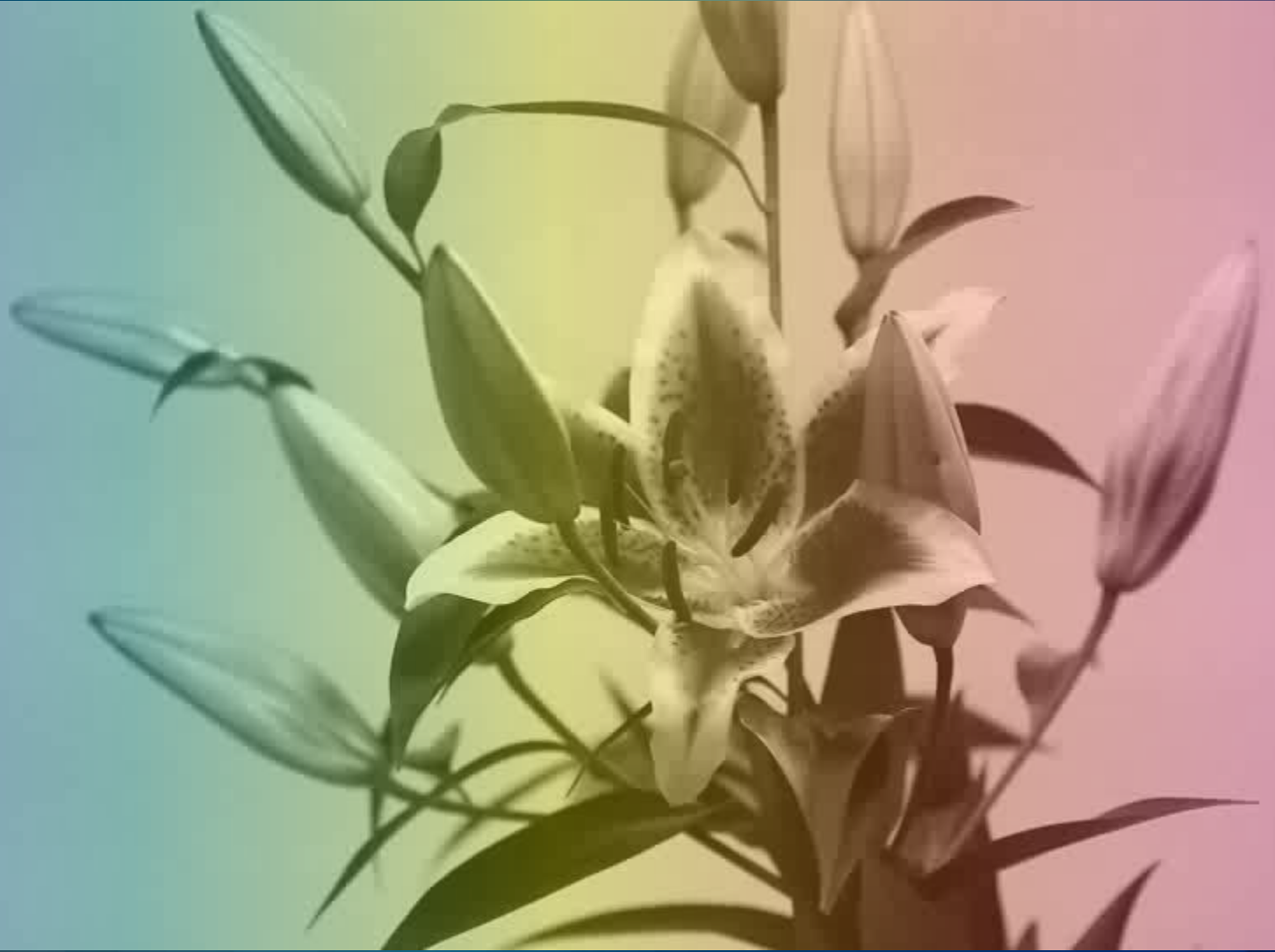
- A collection of legal decisions made by Babylonian king Hammurabi (c. 1700 BCE).
- Of the 282 edicts, 15 mentioned physicians, veterinarians, barbers or midwives.
- A doctor was to be held responsible for surgical errors and failures "the use of a knife".



Hammurabi receiving his laws from Babylon's sun god and god of justice, Shamash



Code of Hammurabi, large block of polished diorite. Louvre Museum in Paris



See you next week...