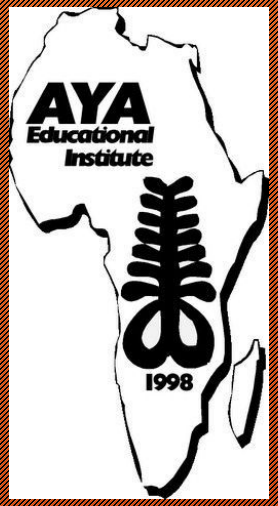
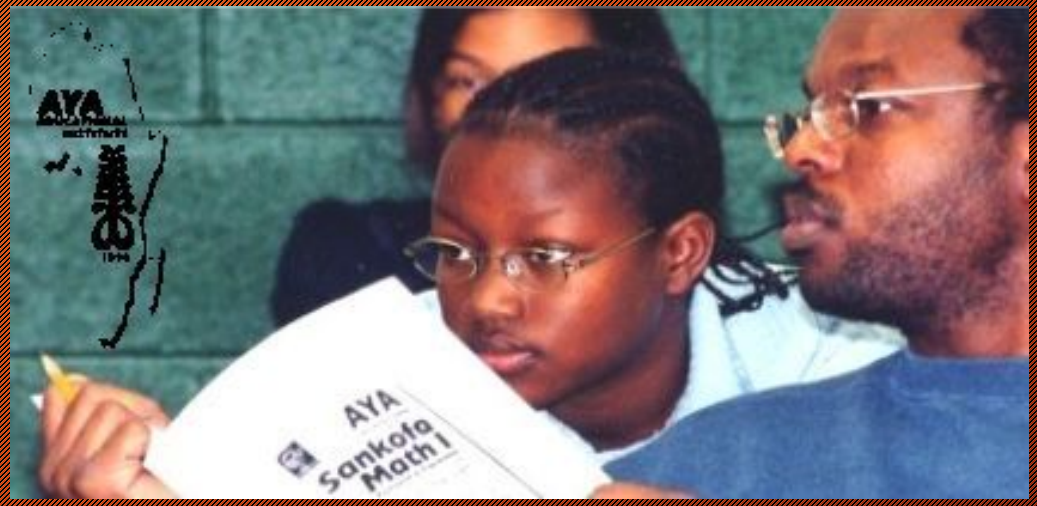
Sankofa Math

Parent - Teacher Training by AYA Educational Institute

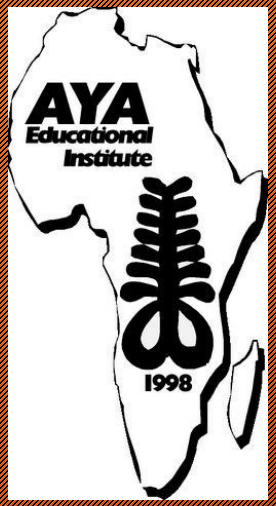
Healing Alienation – Going Back to Fetch it!

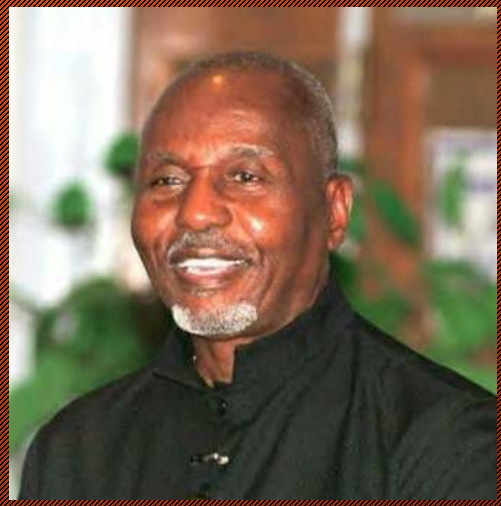
Sankofa Math





Sankofa Math





Introduction

- Name
- Passion

The Problem(s)

- Name 3 of the top problems with teaching mathematics to our children
- …with our children learning math and gaining excellence
- What have you done that has been successful?

Problem: Alienation

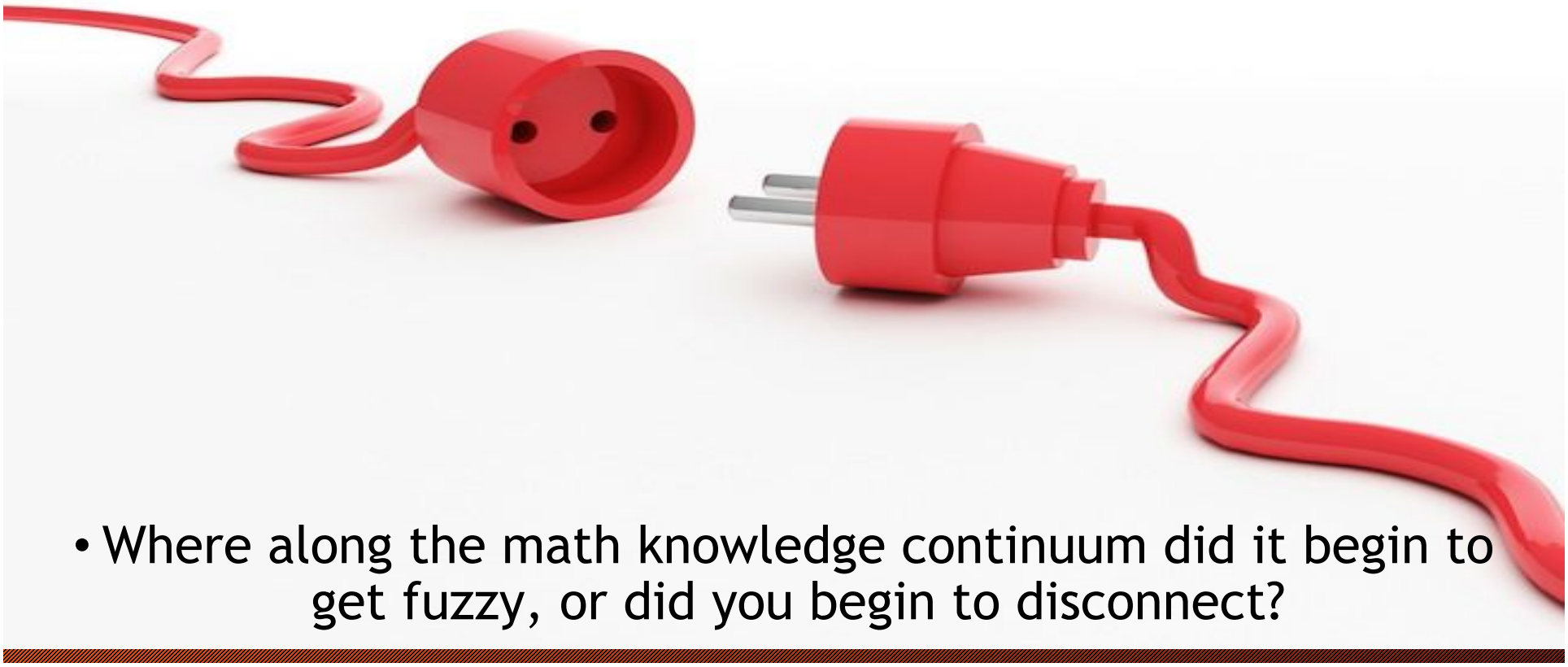
- Alienation from subject
- Alienation from our people or culture

SM Problem ID: Alienation

- Given the history and continuation of modern oppression where “smarts” among African Americans were only rewarded when used primarily in service of the dominant society, would such a request for reassurance be unreasonable?

SM Problem ID: Alienation

- How does the math educational process (content and methodology) itself unwittingly contribute such alienation for both the student who excels and the student who underachieves?



- Where along the math knowledge continuum did it begin to get fuzzy, or did you begin to disconnect?

Macro Reconnect

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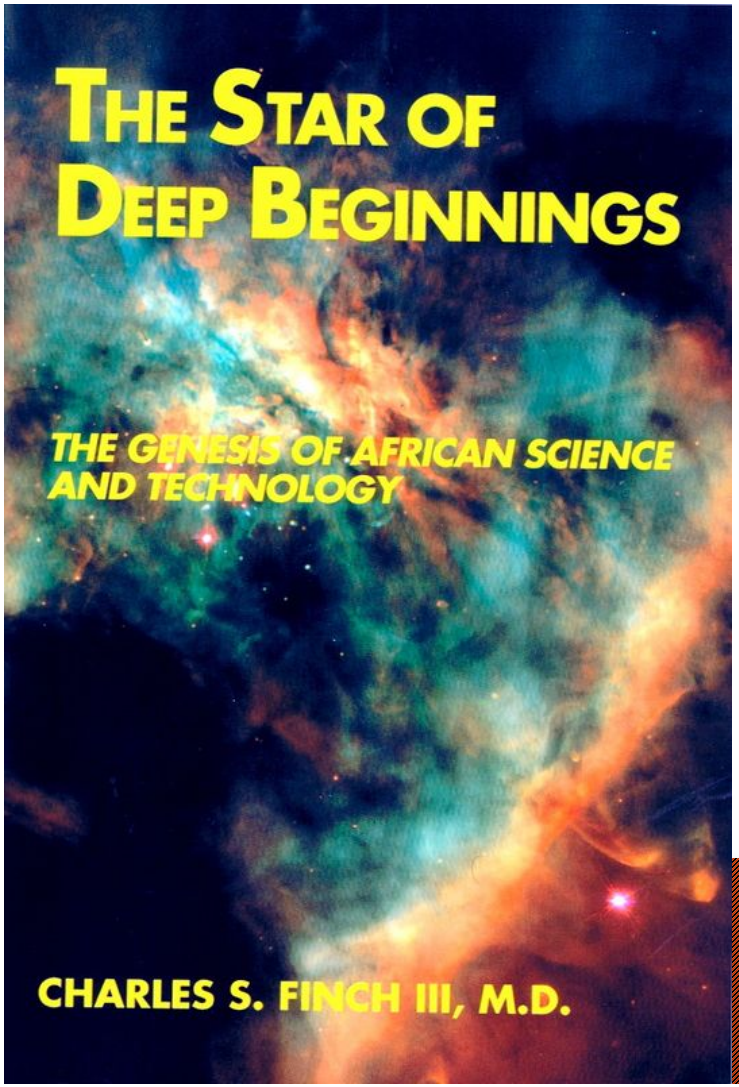
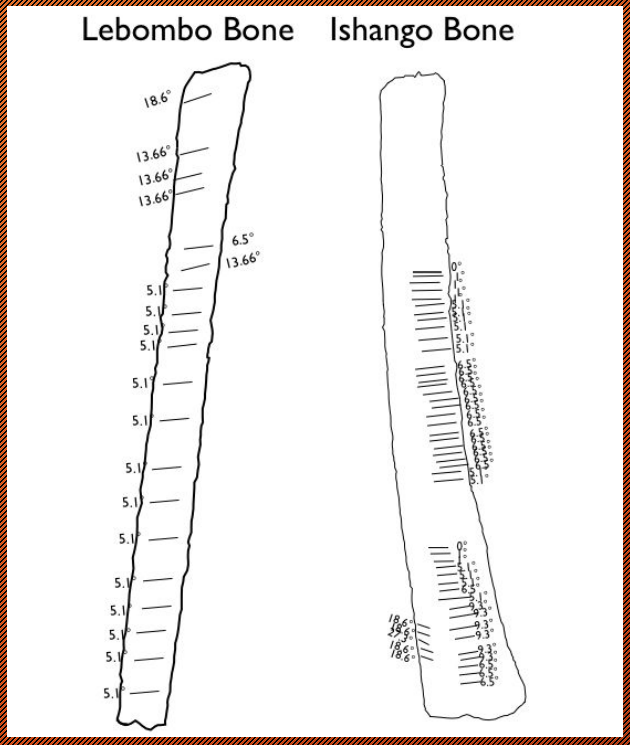
Healing Alienation – Going Back to Fetch it!


THE STAR OF DEEP BEGINNINGS
THE GENESIS OF AFRICAN SCIENCE AND TECHNOLOGY
CHARLES S. FINCH III, M.D.

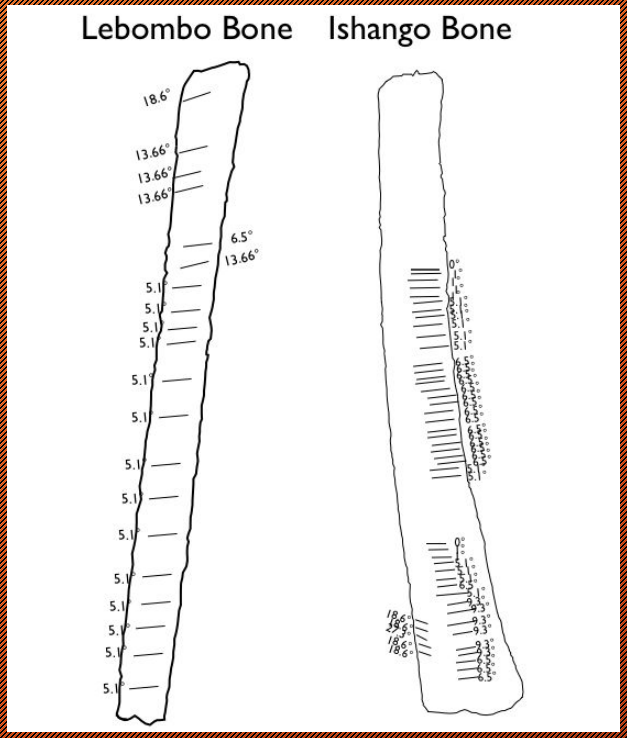
22,000 BCE Ishango Bone

Ishango and Lemombo Bones



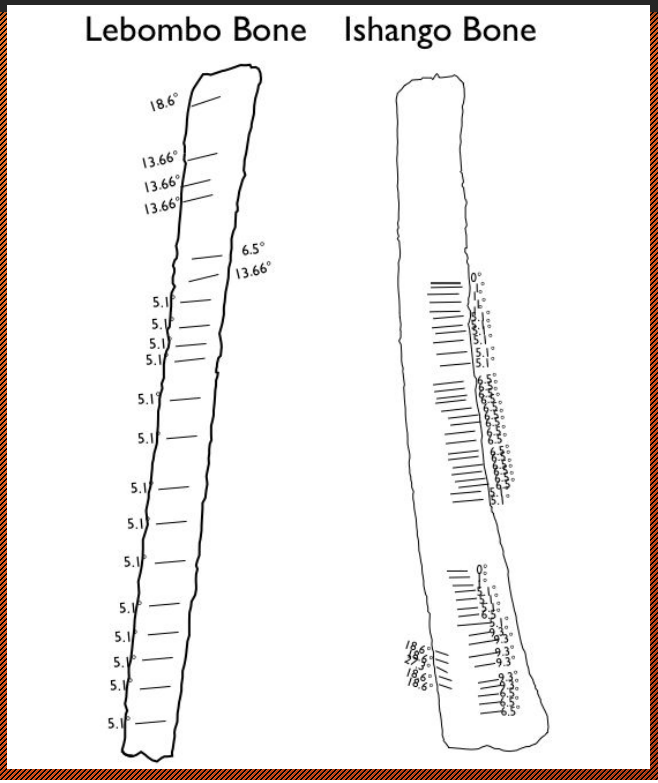
- It is now well established, and also now reasonably proven that the astronomical values used in early geometrical writing are those related to the physical measurement of time and the prediction of eclipses (1-21).

37, 000 BCE Year old Lemombo & 22,000 BCE Ishango Bones



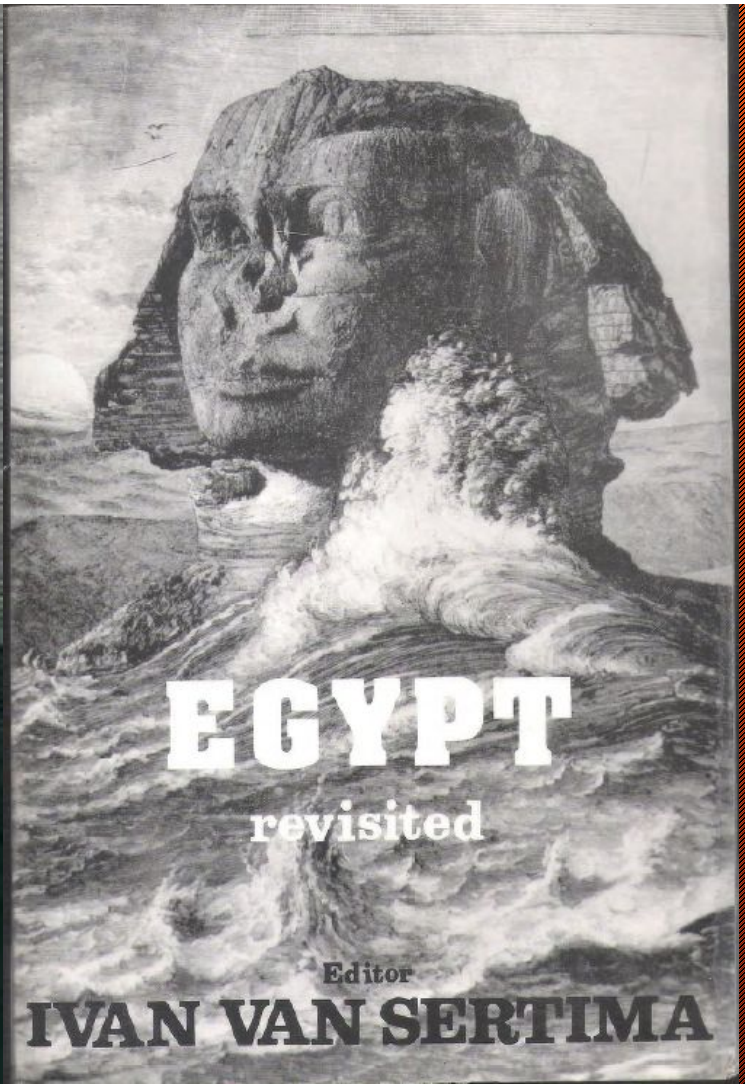
- *The most important astronomical value in early Paleolithic-era documents is the 13.66/27.32 day sidereal month, which is the time required for the moon to appear over the same region of the night sky twice.*

37, 000 BCE Year old Lemombo & 22,000 BCE Ishango Bones

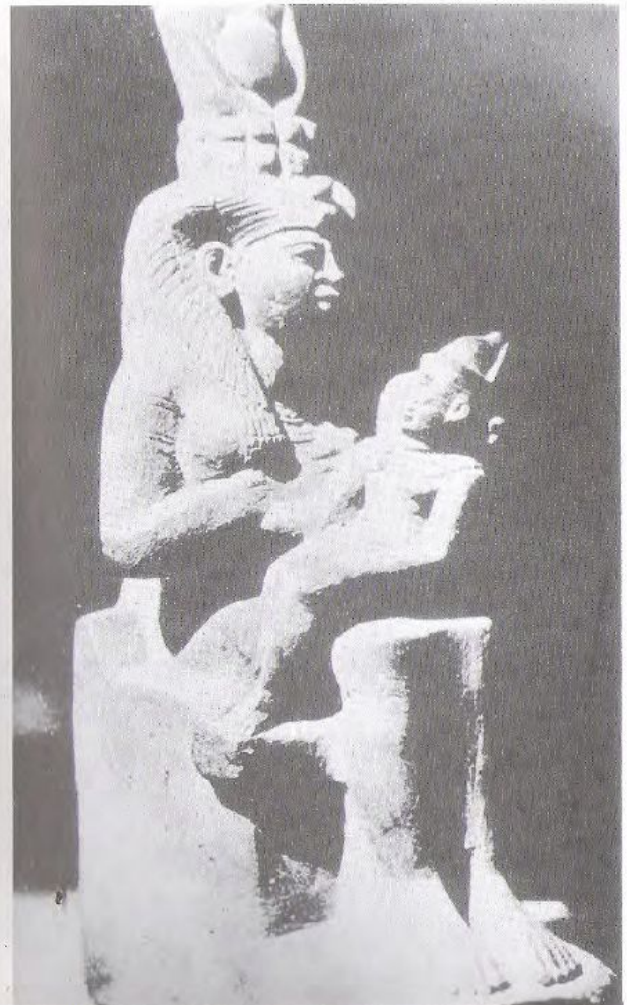


- Once this value is known it is a simple process to then calculate the duration of one year, and from that to measure other key astronomical values, such as the circa 1 degree daily shift of earth as it orbits around the sun.
- This angular value (the sidereal month value) is also drawn geometrically by the causeways located in front of the Great Pyramids (1).

Ishango Bone

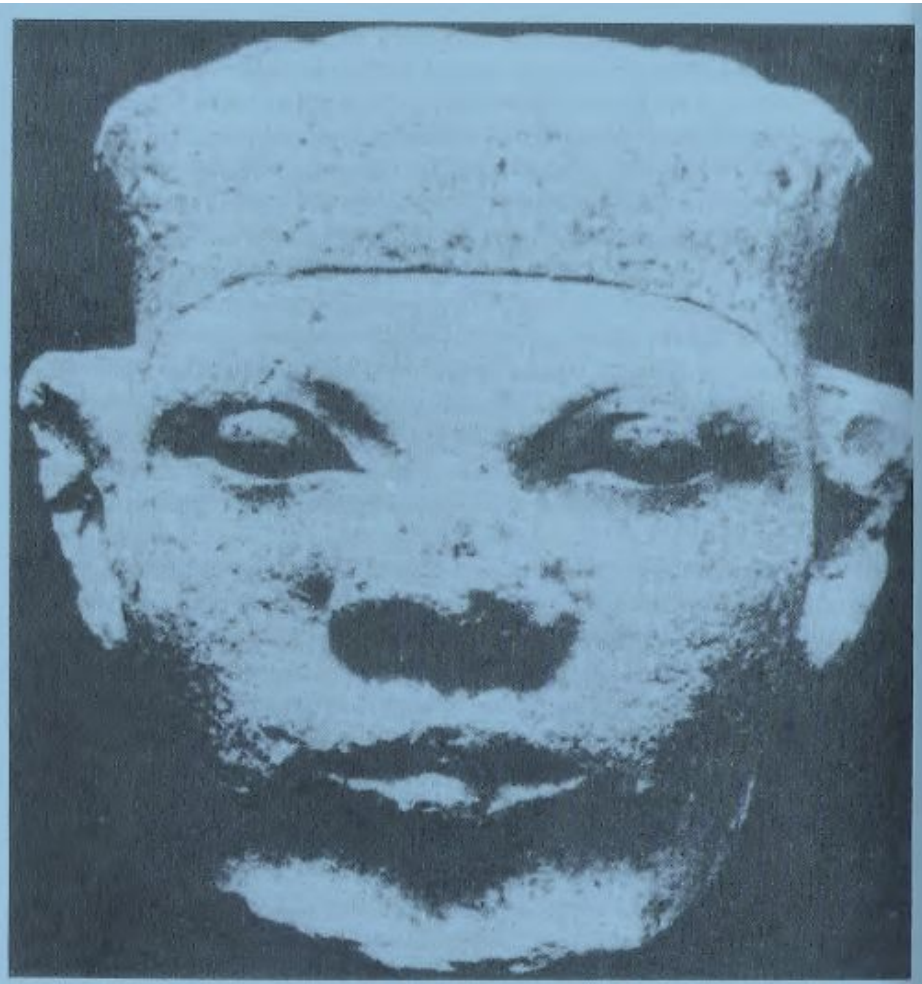

EGYPT
revisited
Editor
IVAN VAN SERTIMA

Close up of Osiris, showing negroid features. *Courtesy of Wayne Chandler and Gaynell Catherine.*



Old Kingdom statue of Isis and Horus, the original black madonna, dated circa 2635 B.C. *Courtesy of Wayne Chandler and Gaynell Catherine.*

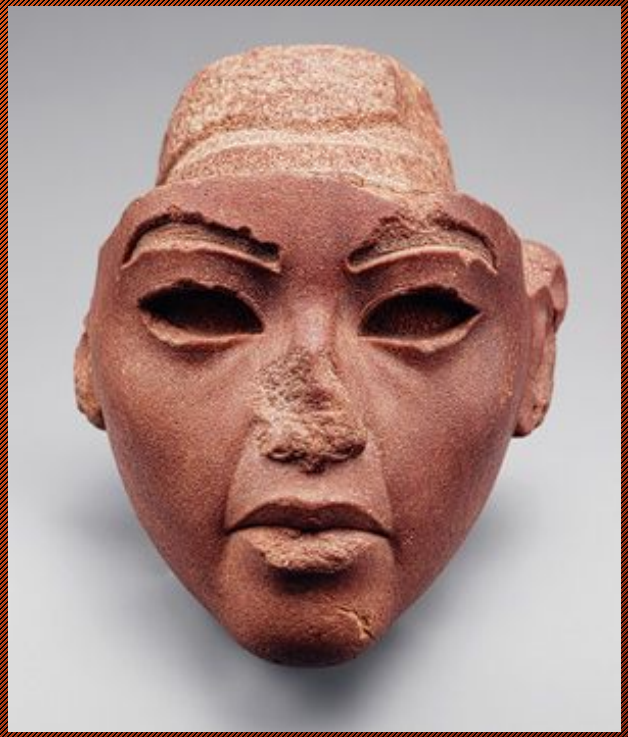
Narmer – Mene



Narmer-Menes, first historic king of Egypt, creator of the dynastic system, the delta, and the city of Memphis; circa 3168 B.C. *Courtesy of Wayne Chandler and Gaynell Catherine.*

Old Kingdom was of a relatively gentle and charitable nature. Although future events would modify these characteristics, this man seemed made for peace and not for war. In fact, men eligible for service would occasionally take refuge in the hills at the time of army recruitment. Brugsch remarks that ". . . in the schools the poor scribe's child sat on the same bench beside the offspring of the rich . . . Above all things they esteemed justice, and virtue had the highest value in their eyes. The law which ordered them to honor the dead; to give bread to the hungry, water to the thirsty, clothing to the naked'—reveals to us one of the finest qualities of old Egyptian character—pity towards the unfortunate."[36] In regards to the status of women, Egypt followed the social pattern characteristic of black culture, originating from a strong matrilineal foundation. "The queen and the other ladies of the royal family were for the most part honored with sacred dignity of 'prophetess of the goddesses Hathor and Nit;' . . . Ba-en-neter enacted as a standing rule forever, that women should inherit the throne. The working of this new custom had important consequences in the establishment of many a dynasty . . . [and] According to the ancient custom the mother's pedigree had great weight in the order of inheritance".[37] Roles in the Old Kingdom appear to have been interchangeable; men often worked at the loom and women frequently managed the business.

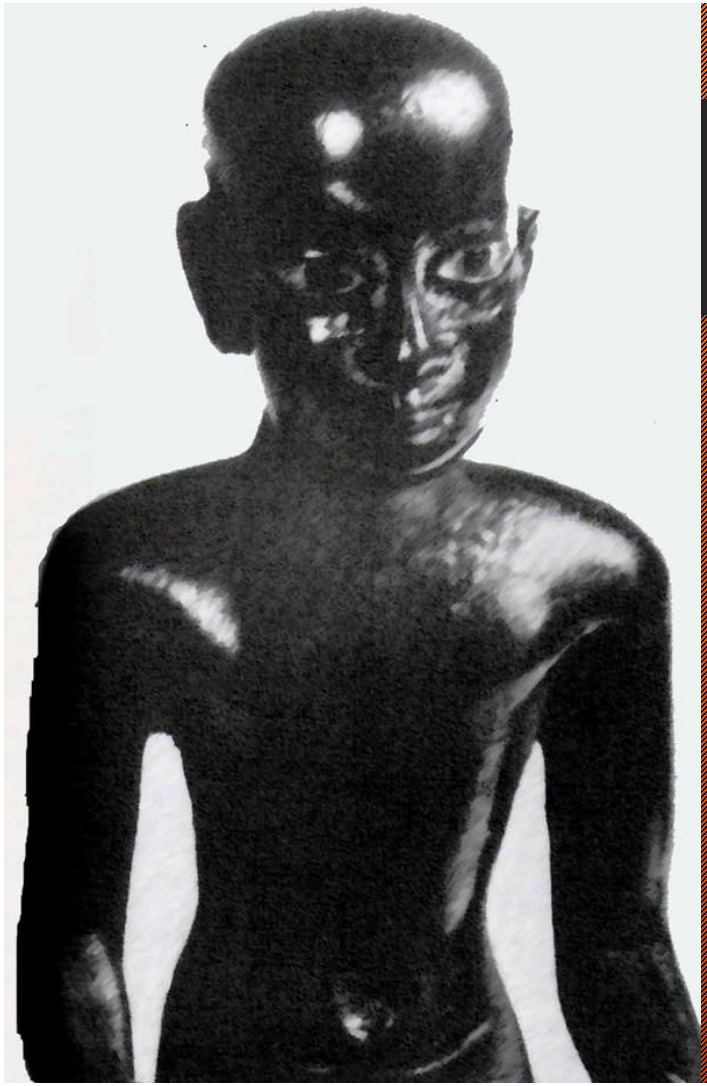
Queen Tiye



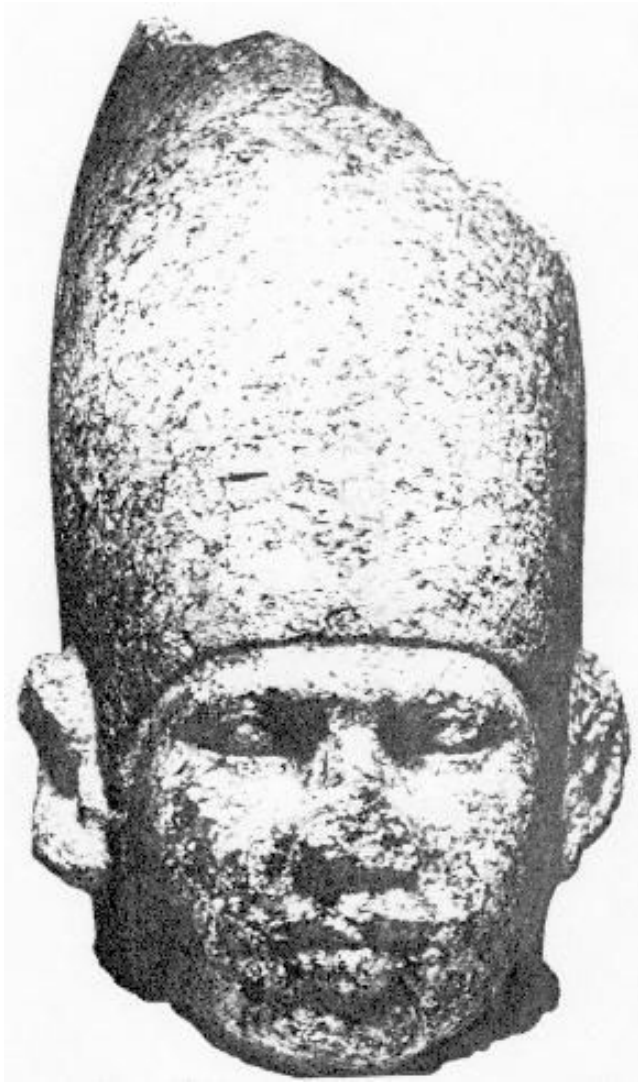
Imhotep is the first physician to stand out clearly in the annals of antiquity. Little is known about his personal life: his father was an architect named Kanofer; his mother was Khreduonkh; and his wife Ronfrenofert. However, his professional achievements became legendary. Imhotep is said to have treated more than 200 diseases, among them fifteen diseases of the abdomen, eleven of the bladder, ten of the rectum, twenty nine of the eyes, and eighteen of the skin. He, as well as other physicians in Egypt, were learned in the science of facial analysis, which allows a trained physician to detect a malady through shape, condition, and complexion of the patient's features. Imhotep knew of the circulation of the blood 4,000 years before it was known in Europe. He was worshipped as a god for the next 3000 years; first as a medical demi-god, from 2650 B.C. to 525 B.C., and then as a complete deity, from 525 B.C.- 550 A.D. Breasted said of

Djoser

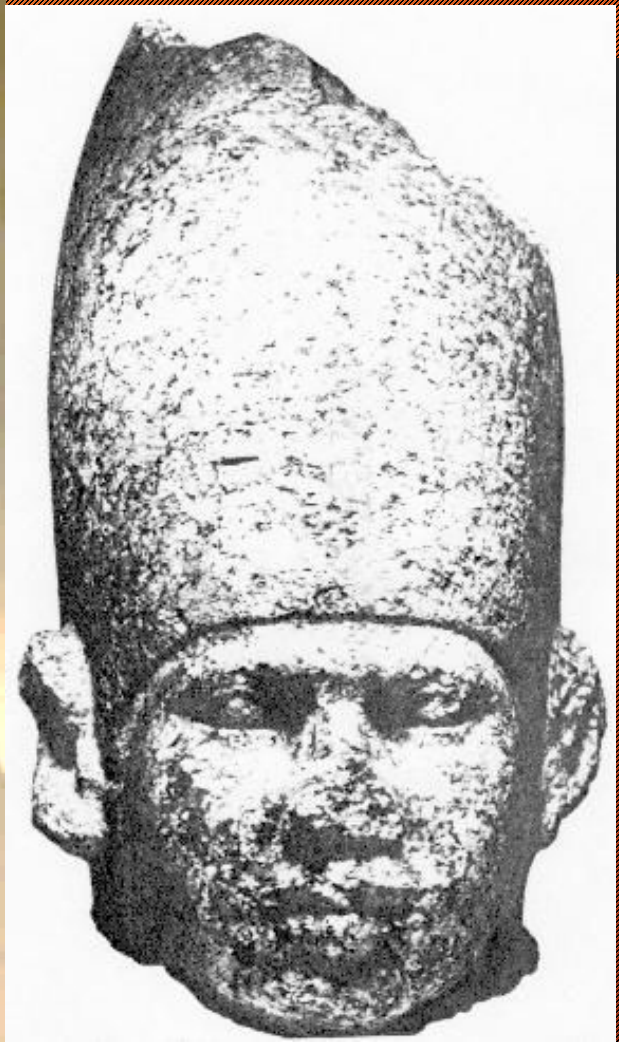
frontier to the first cataract. Djoser's reign marked the beginning of extensive building in stone and it is here that his story really begins. It is known all too well that Djoser's success is due in part to a great wise man who became Djoser's chief advisor. His name was Imhotep, divine priest of the Third Dynasty.



Imhotep



Sneferu



Sneferu

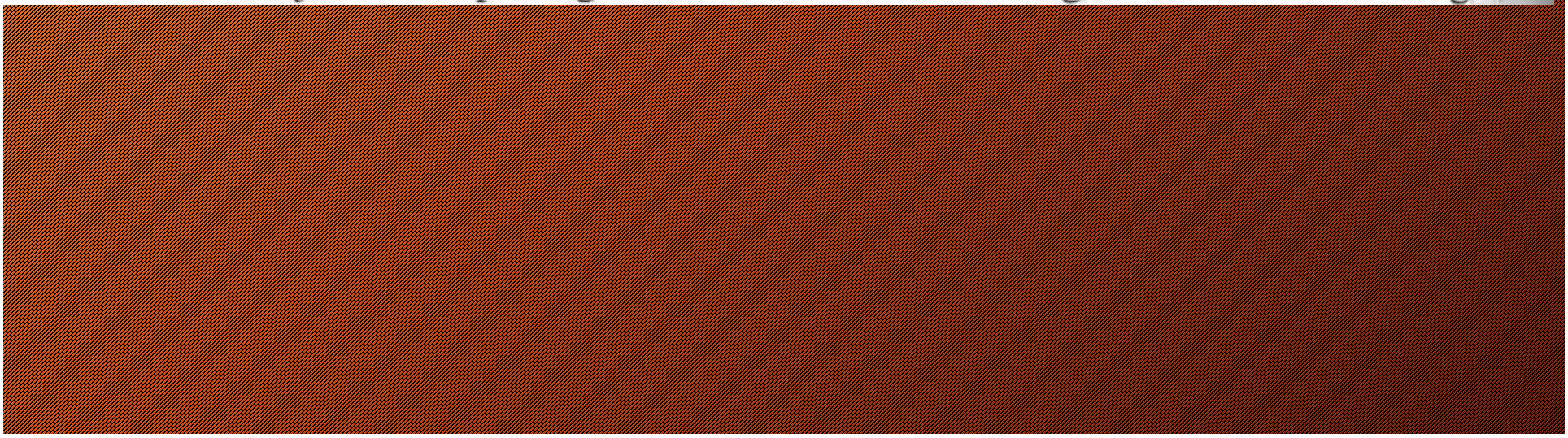
The wealth and power which characterized the reign of Djoser continued throughout the duration of the Third Dynasty. To these great kings we may attribute other forays into pyramid construction, although most of these were never completed. The Third Dynasty came to a close with the reign of King Huni. He also built a pyramid, which is to be found at Meydum. An old papyrus states "Then died the holiness of King Huni. Then was raised up the holiness of King Sneferu as a good king over the whole country."[52] At the close of the dynasty widespread prosperity enveloped the land.

We begin the start of the Fourth Dynasty with Sneferu. He immediately began to set the standard that would epitomize the cultural and political atmosphere of the Fourth Dynasty. "He built vessels nearly one hundred and seventy feet long, for traffic administration upon the river; he continued the development of the copper mines in Sinai, . . . a thousand years later it is his achievements in this region, with which the later kings compared their own. He regulated the eastern frontier, . . . and roads and stations in the eastern delta still bore his name fifteen hundred years after his death."[53] Sneferu was responsible for the building of the bent pyramid at Dashur. This pyramid was the greatest building thus far created, and would pave the way for what would become one of the seven true wonders of the world.

After the passing of the great family of Sneferu, the king next to succeed the throne was Khufu, or Cheops of the Greeks. Khufu was born in a town close to present day Beni Hasan in Middle Egypt. Because of this fact Khufu did not consider himself a Memphite and retained a strong allegiance to the south. In

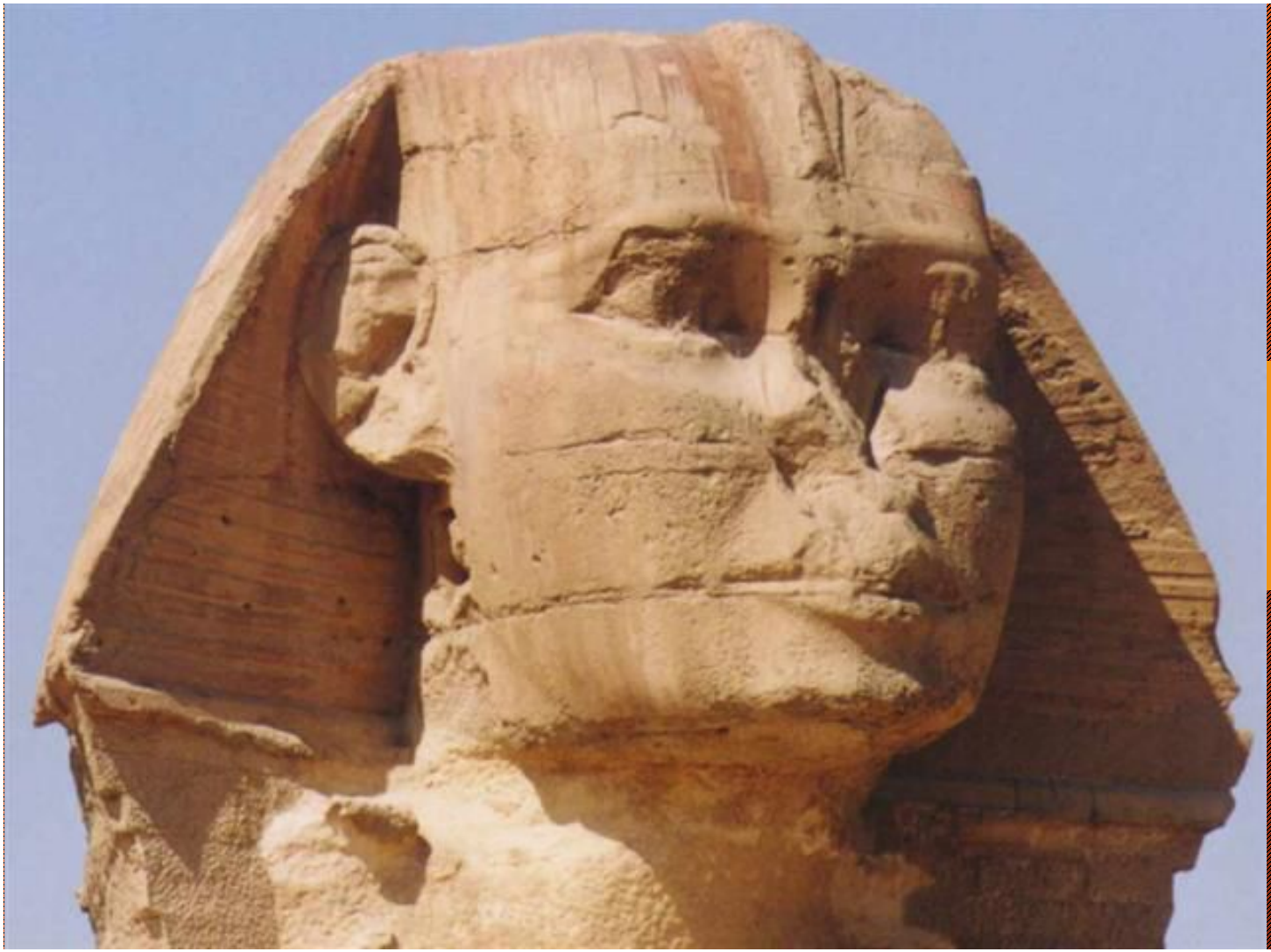
Khufu

Next to ascend the throne was Khafre, or the Chefren of the Greeks. It is possible that he was the son of Dedefre for their names translate into the same meaning, "His Shining is Ra". Also like Dedefre, there seemed to be a strong connection with the priests at Heliopolis. Khafre's wife was named Meri-s-ankh, and she appears to have been a devout patron of the Old Kingdom's religion. Khafre's pyramid stands next to that of Khufu and was designated by the ancients 'the Great'. This pyramid is smaller and not quite as well constructed as Khufu's, but it remains just as imposing. Discovered in a building of immaculate design,



Khafre

"His shining is Ra"



Sphinx

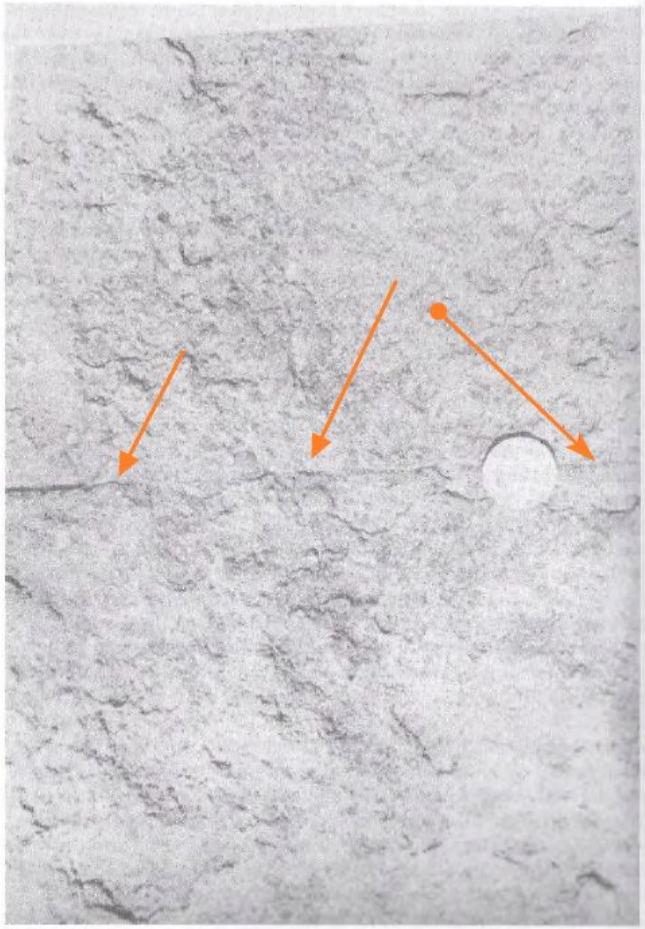
Menkaure

The next Great Pyramid to rise on the sands of Gizeh belonged to King Menkure who was the Mycerinus of the Greeks. Though he tried to maintain the building splendor of his predecessors, Khafre and Khufu, his pyramid in comparison leaves much to be desired. Most historians feel that by the time Menkure became sovereign over Egypt the kingdom's resources had been greatly depleted by the raising of Gizeh's first two pyramids, not to mention the pyramids of Snefru and Djoser. Though his efforts may have been meager in comparison, his achievement has stood the test of time, unlike many pyramids that succeeded him. His pyramid in the Egyptian language was called Her, 'the high one'. This

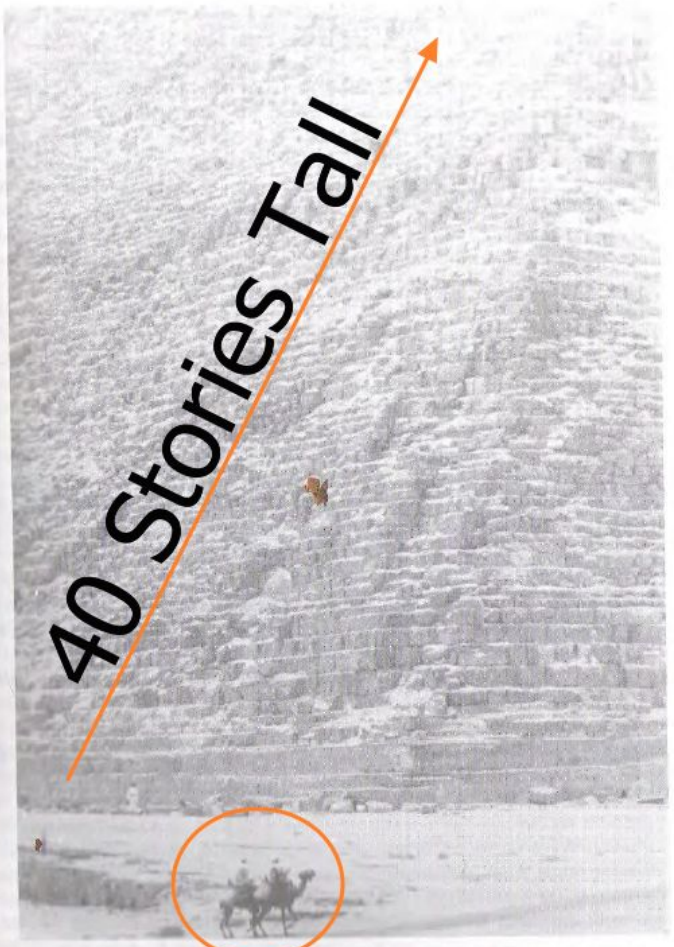
The Egyptians of the Old Kingdom made commendable forays into the arts and sciences. The old saying that nothing is new under the sun is surely reflected in the accomplishments of the first six dynasties. A powerful cure for severe cases of leprosy was discovered in a writing case underneath the feet of the divine Anu, in the town of Sekhem. The Egyptians also had an understanding of optics, surgery, and magnification. The Ebers Papyrus states that the Egyptians used pain killers, flea powders, and hair dyes and invigorators. The son of Menes, Teta, developed a formula for making the hair grow. Their architectural feats went unsurpassed. Champollion, who passed almost his entire life in the exploration of archaeological remains, described one of the great temples of ancient Egypt as being so overwhelming that the Cathedral of Notre Dame might stand in it and not touch the ceiling, but merely be considered a small decorative ornament in the center of the hall. The proof that they were proficient in mathematical sciences lies in the fact that those ancient mathematicians we regard as the fathers of geometry went to Egypt to receive instruction; for example, Pythagorus

studied in Egypt twenty two years. As one historian noted, the number of Greek scholars visiting Egypt gave rise to the saying that "the geometrical knowledge of the pyramid builders began where Euclid's ended." Advances were made in astronomy that truly staggered the minds of our contemporary scientists. Herodotus wrote in the fifth century B.C. ". . . the Egyptians by their study of astronomy discovered the solar year and were the first to divide it into twelve parts—and in my opinion their method of calculation is better than the Greek; for the Greeks, to make the seasons work out properly, intercalate a whole month every other year, while the Egyptians make the year consist of twelve months of thirty days each and every year intercalate five additional days, and so complete the regular cycle of the seasons".[35] The Egyptians also brewed the best beer of the ancient world. They made paper of such excellent quality that it was immune to the vestiges of time.

Djedefre

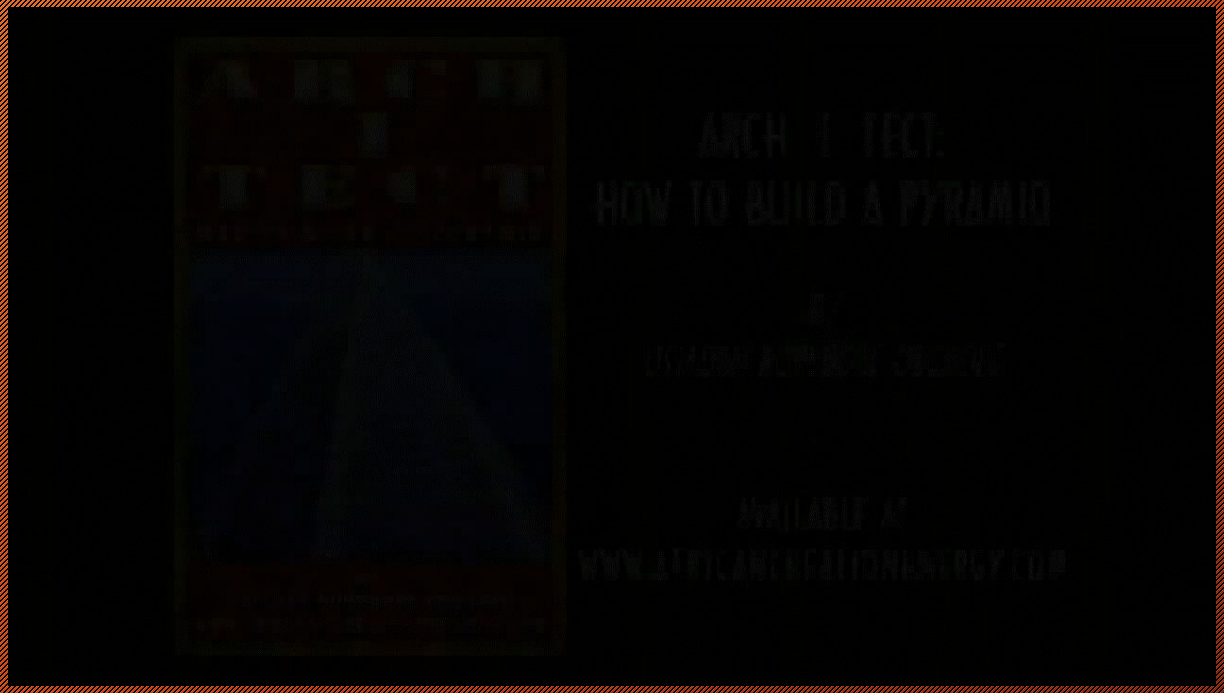


Photograph showing the optician's seam of two adjoining casing blocks; coin which straddles the seam is equivalent in size to a US quarter. *Courtesy of Wayne Chandler and Gaynell Catherine.*

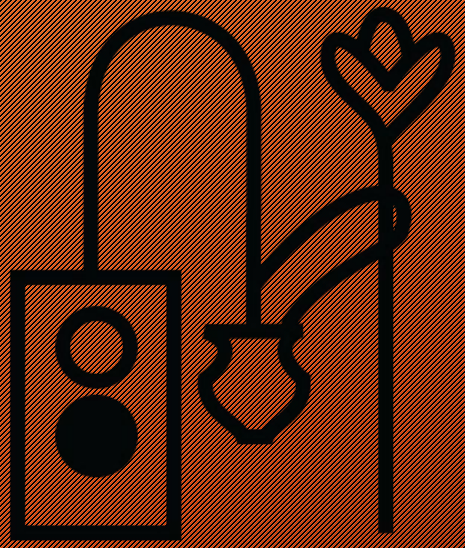


2nd Great Pyramid of Khafre which indicates the immense number of stone necessary in its construction. *Courtesy of Wayne Chandler and Gaynell Catherine.*

Geometry: “Sekeds” Instead of Angles

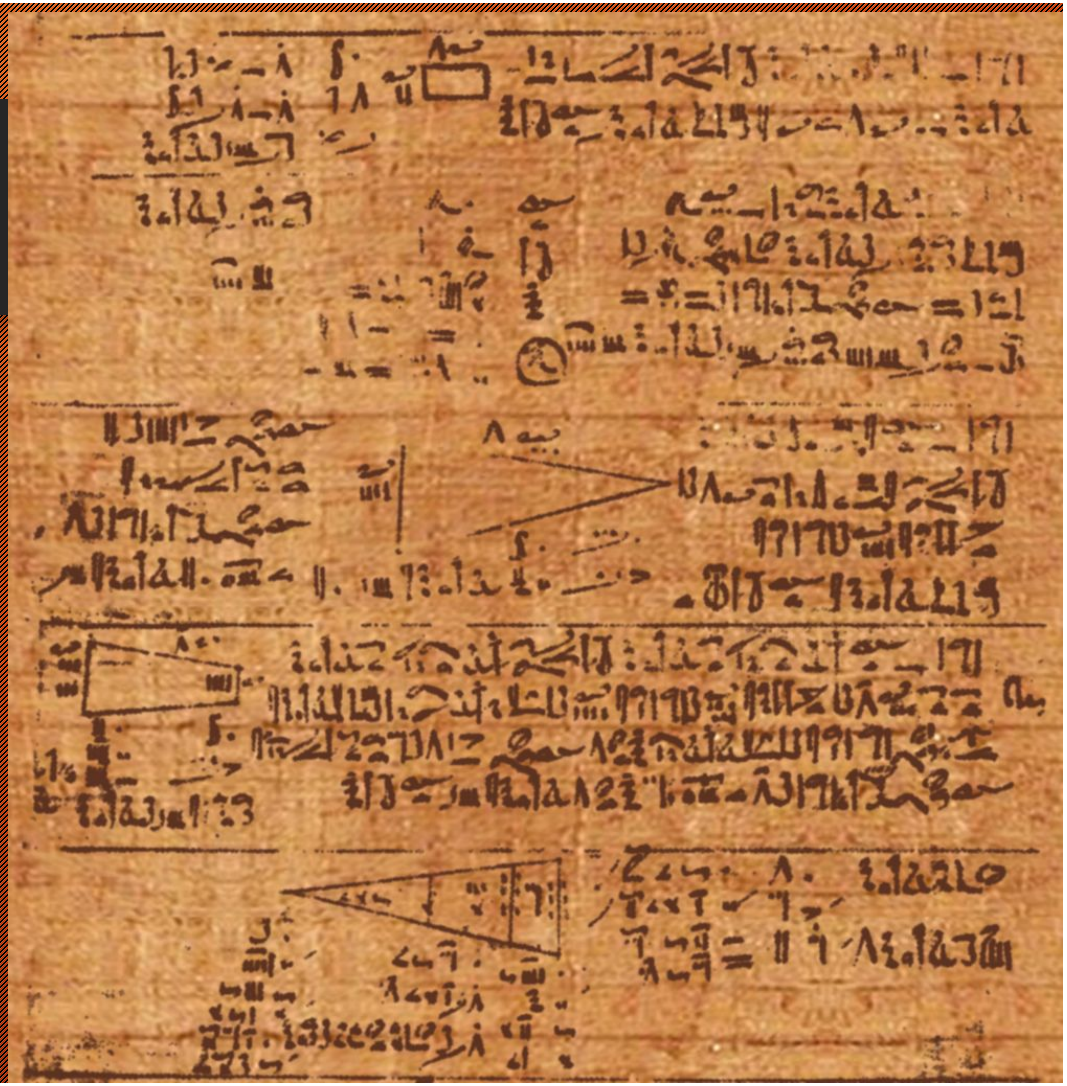


Scribe

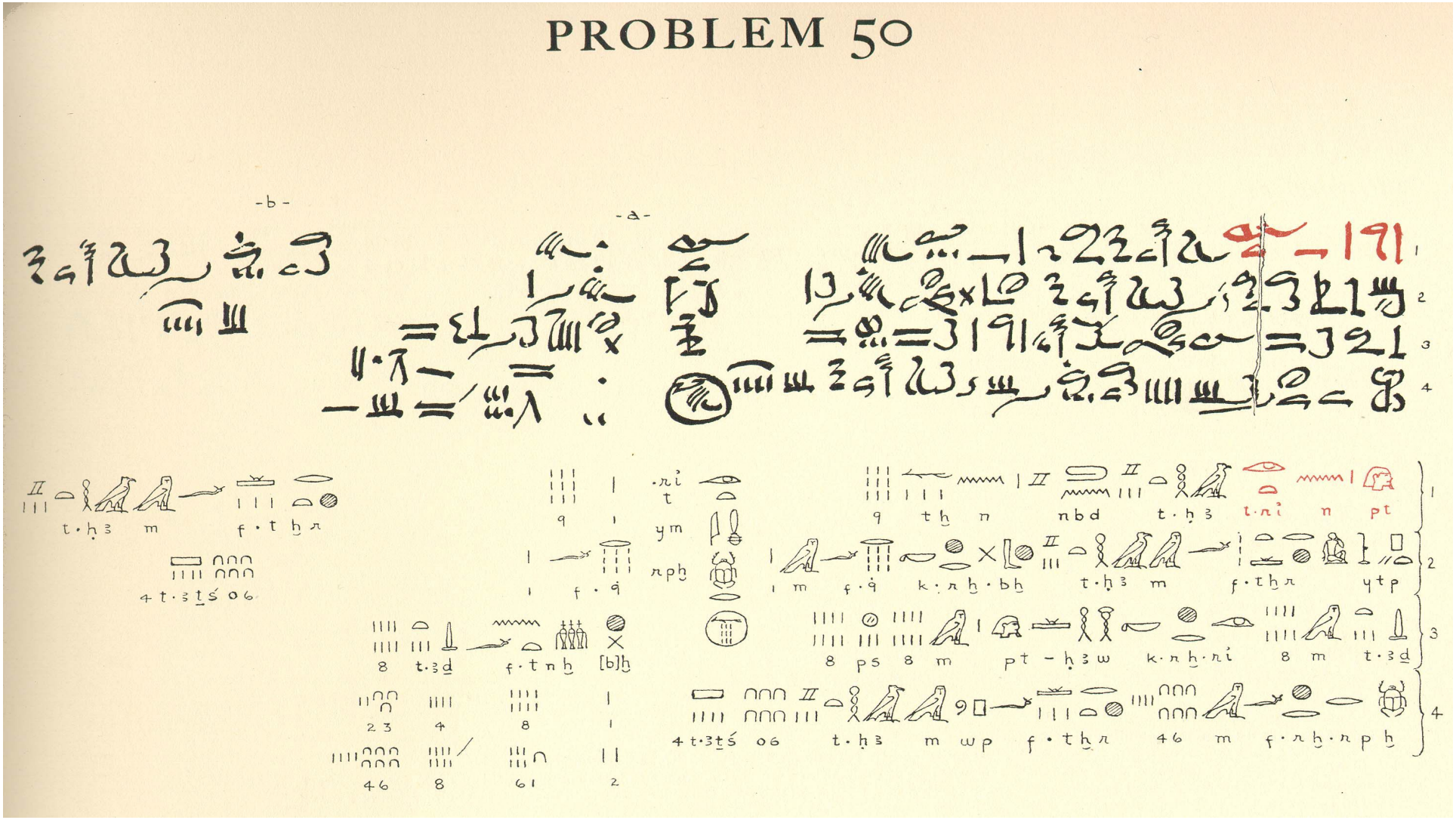


Ahmes Papyrus

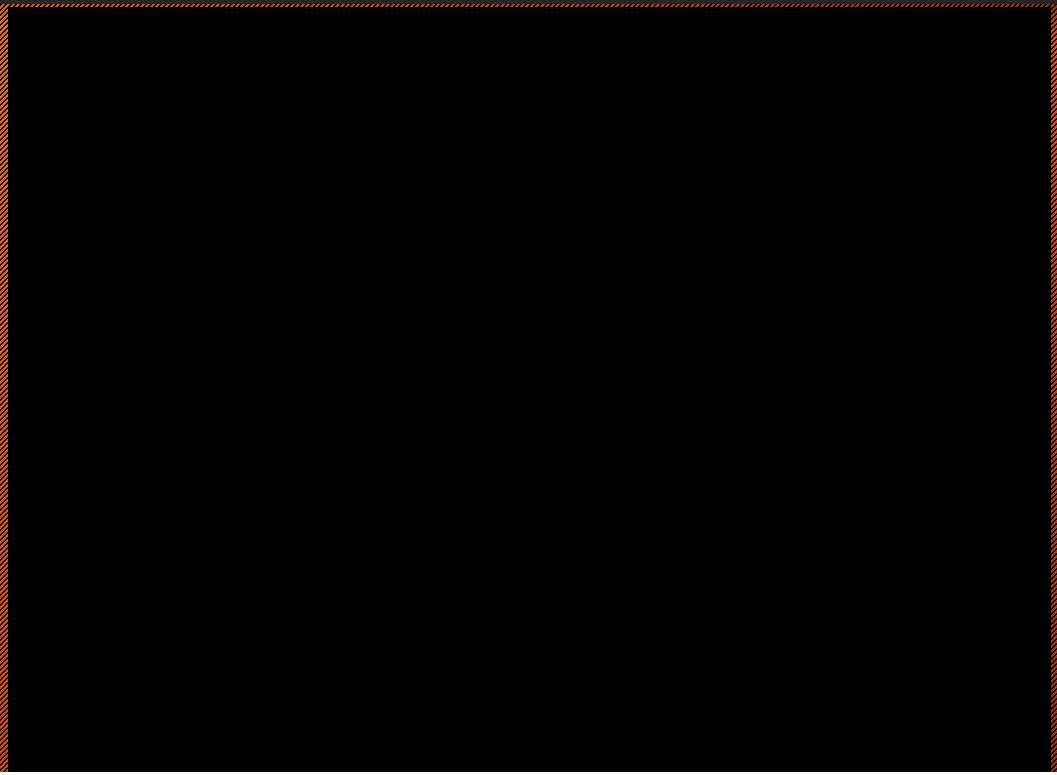
- 1850 B.C.E. and penned by the scribe Ahmes around 1650 B.C.E.
- Insight in to all that exists
- Includes
- Fractions
- Notation
- Arithmetic
- Algebra
- Geometry



PROBLEM 50



Your Ancestors' Computer Thinking



“Ahmes on Algebra Papyrus” Called “Rhind.”

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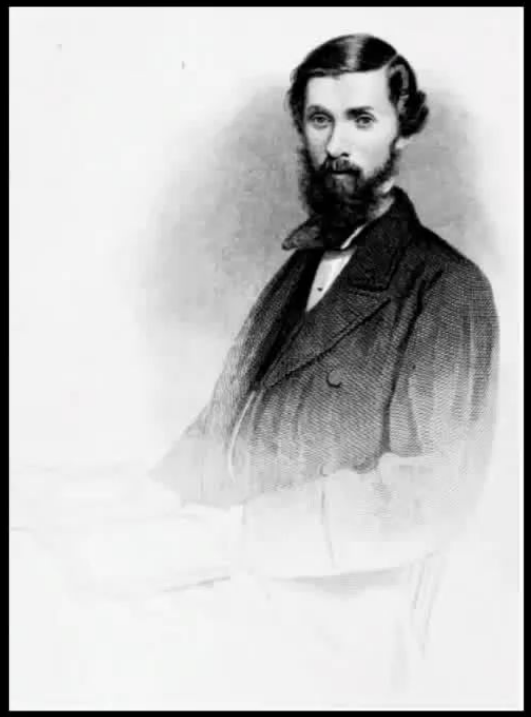

Artist Mathemeticians

Archaeologists have found potsherds at Deir el-Medina that ancient students of art used. On them are images that evince the student's attempt to artistically recreate the human and divine form.

Golden Ratio

- It is the measurement that helps to draw the human body: the Sacred Ratio of a person's arm is his shoulder to his elbow, his elbow to his fingertips; the Divine Proportion of a person's leg is her hip to her knee, her knee to her foot; the Golden Ratio of a person's finger is his first joint to his middle joint, his middle joint to his fingertip; and so on

Micro Reconnect

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Healing Alienation – Going Back to Fetch it!

Break Into Micro-Reconnect Groups

- Choose the content area closest to where it got fuzzy for you, or near the point at which disconnected.

New Associations

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Healing Alienation – Going Back to Fetch it!

Concepts: The Flow of Recognition

- The Flow of Recognition
  - Shapes behavior, encourages excellence or mediocrity
  - Motivates or discourages
  - Stimulates or stifles creativity
  - The “alien” Negate-Being flow stimulates compensatory actions and conflict
  - The management of this important flow (by management or non-management) is largely unconscious, yet defines the essence of the organizational culture

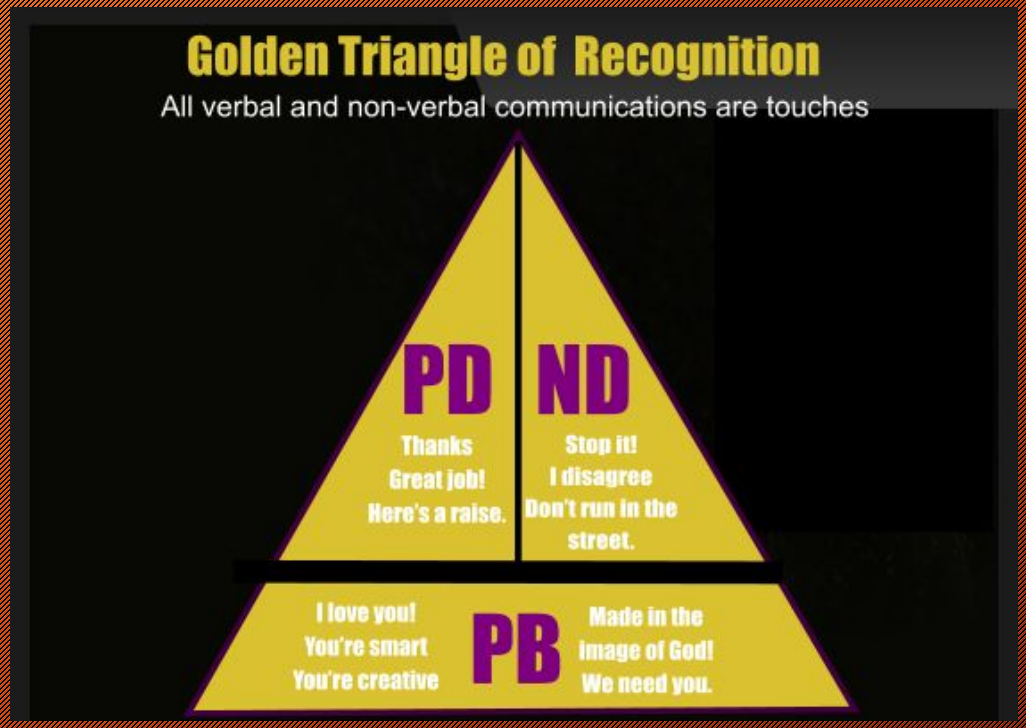
Concepts: The Flow of Recognition

Concepts: The Flow of Recognition

Concepts: The Flow of Recognition

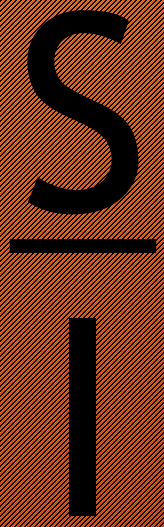
Concepts: The Flow of Recognition

Concepts: The Flow of Recognition



Concepts: The Flow of Recognition

Oppression



The misguided organizing principle that defines Relationships, creates conflict, and directs our communication with self and others.

Reality is split, is oppositional, is hierarchical

"Twin-ness" / "Complementarity"

S|M$_{en}$-R-B-Adult-Degree

I|W$_{omen}$-P-W-Youth- NoDegree

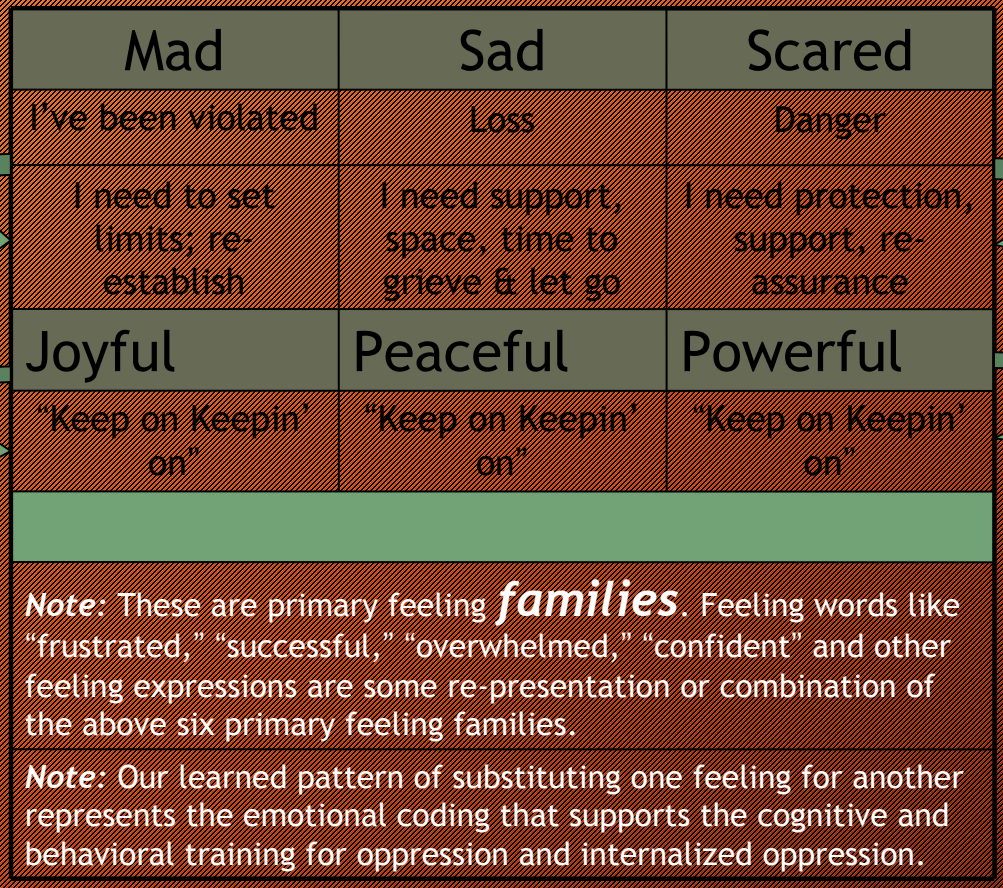
- Violence, War - Physical, Psychic, Social
- Proscribed by Society

Feeling As Messengers

elings as Messengers (FAM) :

introduction to "Intelligence of the Heart."

Feelings as Messengers is a small doorway to find our way back to higher intuition, spirituality and to ***"intelligence of the heart."***



Sankofa Math

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Thank You,

Wekesa O.Madzimoyo,
Afiya O. Madzimoyo
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