



Blacks in Science, Engineering and Architecture

Howard University

College of Engineering, Architecture, and Computer Science

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gharris@msrce.howard.edu

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Outline of the Presentation

- Introduction and Dedication
- Ancient Contribution of Black Scientists, Architectures, and Engineers
- Modern Contribution of Black Scientists, Architectures, and Engineers

Dedication (~2300 BC)

□ Grandfather Imhotep

- Father of Medicine
- Prime Minister for King Zoser III Dynasty
- Architect, Scientist, Engineer
- Co-Author of the First Medical Textbook
- Poet: "Eat, Drink and be merry for tomorrow we die"



Dedication (~1987)

□ Cheikh Anta Diop

- Former Director of Radiocarbon Dating Lab
- Historian, Mathematician, Linguist
- Author, “The African Origin of Civilization”
- *The Cultural Unity of Negro Africa*, (1959)



Condition of Africa/Black People

- ☐ Lost Our Names
- ☐ Lost Our Way of Life
- ☐ Lost Our Culture
- ☐ **General Lost of Memory**
- ☐ Lost Our Land
- ☐ Lost Our Independent Product Capacity
- ☐ Lost Our Independent Control Over Ourselves
- ☐ Lost Our Sensitivity
- ☐ Lost Our Solidarity

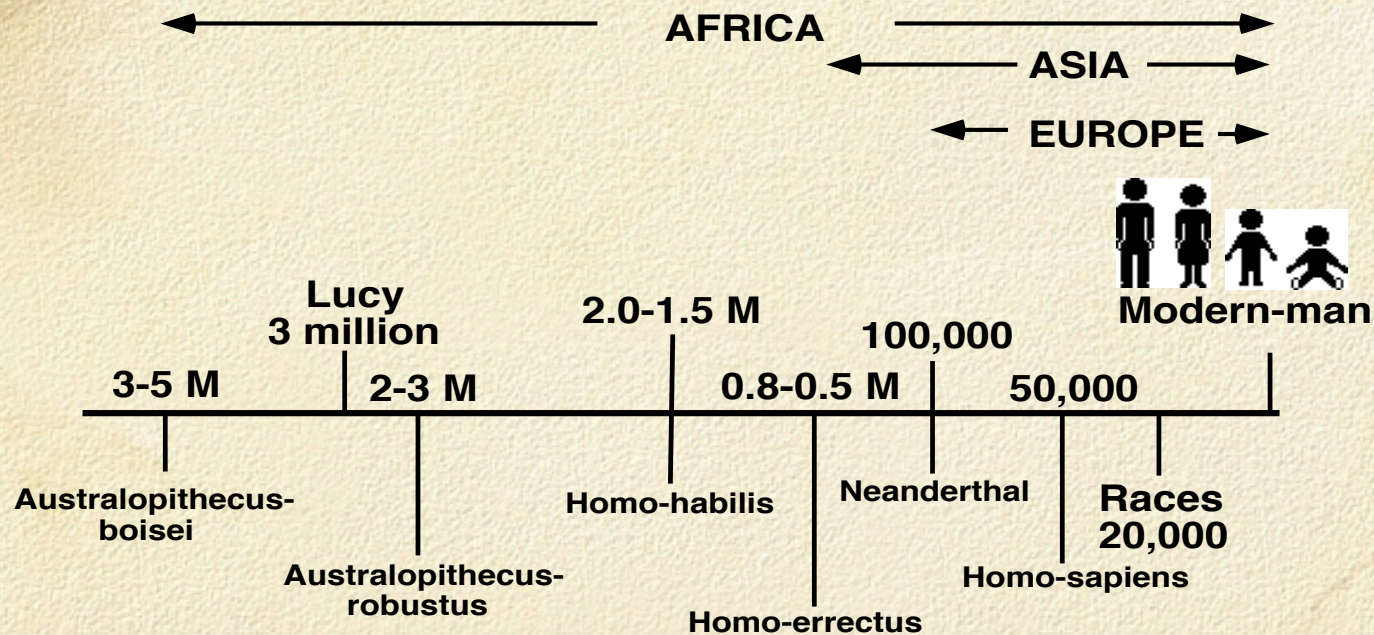
Asa Hillard
Howard University 1987

Earth

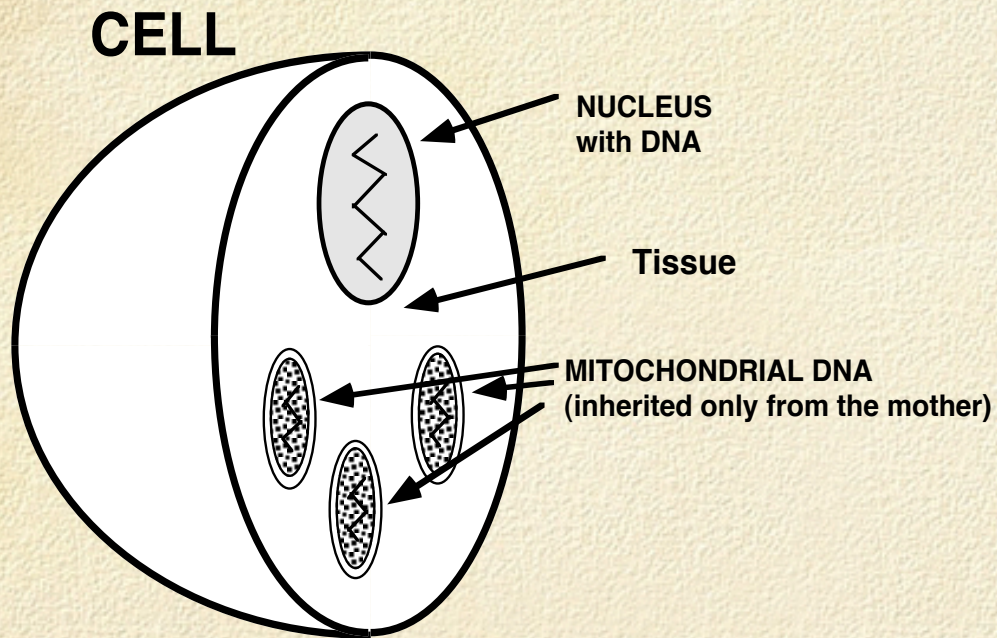
- ☐ 210-175 million year old
- ☐ 50 million year ago-continental drift
- ☐ North 18 million sq. miles
- ☐ South 38 million sq. miles
- ☐ Old Soviet Union 8.7 million sq. miles
- ☐ Africa 11.7 million sq. miles



Evolution's Long March

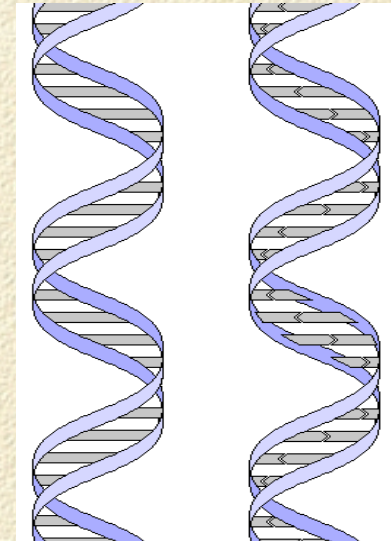


Basic Female Cells

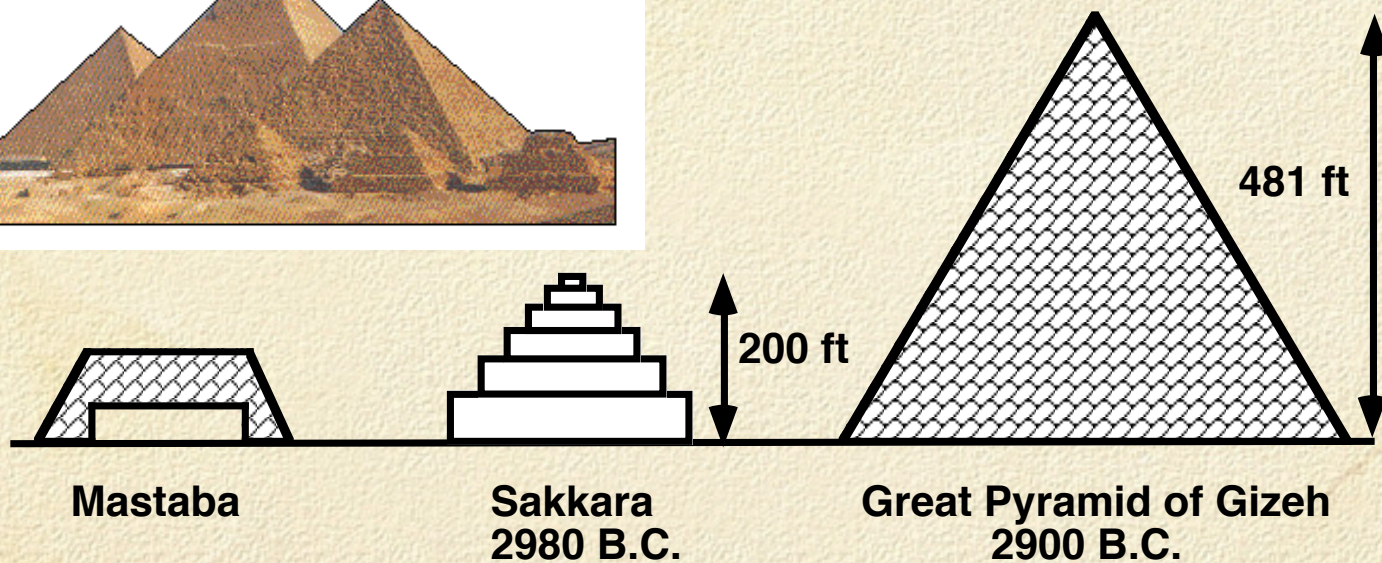
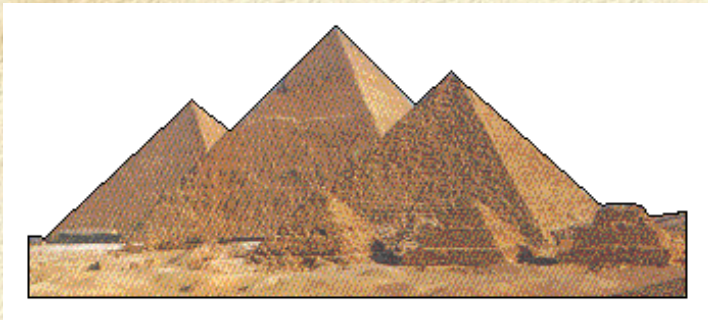


By studying these molecules biologists devised the theory of a common female ancestor

DNA



Egypt (Kmt,Kemet) Pyramid

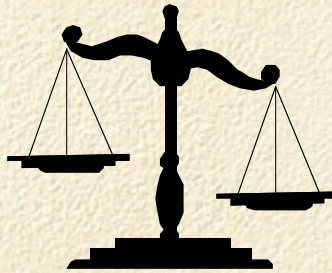


Herodotus- Greek historian
Great Pyramid
2 million blocks/2.5 tons each
100,000 men over 20 years

Images of Africa



Freemasonry



Maa'T



**Karnak Temple, Luxor
Valley of the Kings**

Images of Africa



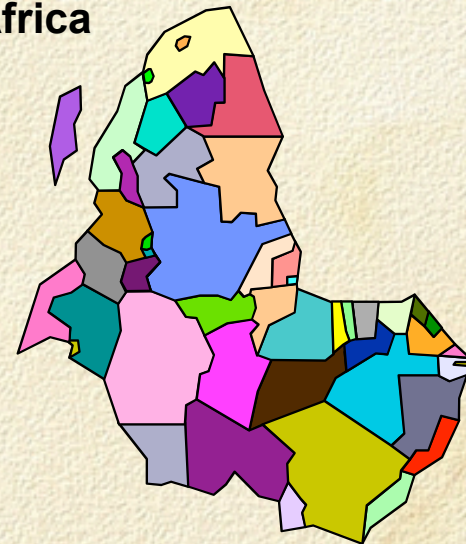
Hatshepsut's Temple



Alexandria Memphis



Africa



Sphinx

Ancient Lost Sciences of Africa

- ❑ Africans produced carbon steel
Lake Victoria in Tanzania
1800 C
1500 – 2000 years ago
- ❑ Astronomical Observatory
300 years BC
Lake Tukana
- ❑ Astronomy (Dogon of Mali)
Sirius B
- ❑ Writing systems
Ta-Seti 12 generations before
Egypt
- ❑ Medicine
Using Plant to Treat Illness



Modern Contributions

- By 1913: African American held over 100 patents
- At Least Eight African Americans worked on the Manhattan Project



H₂ - Hydrogen



**University of Chicago
Oak Ridge, Tennessee
Los Alamos, New Mexico**

Modern Contributions

Julian
Abele



U of P, Architecture student 1902
work for Horace Trumbauer
chief designer of Duke University

James West



Inventor, foil-electret microphone
President, Acoustical Society of America
> 40 US patents, 100 papers

Modern Contributions

Mark Dean



Dean holds 3 of the 9 original PC patents
1st in his class at U of Tennessee
IBM Fellow

Anthony
Johnson



President of Optical Society of America
Non-linear optics
Chairman of Physics at NJIT

Modern Contributions

Granville Words		over 60 patents sued Thomas Edison twice Inventor of the Third rail
Rufus P. Turner		developed 'tiny' radio over 45 textbooks, 1000 articles radio station in local church
Walter Link Hawkins		Trans-Atlantic cable Stabilization of polymers First MTS at Bell Labs National Academy of Engineers

Modern Contributions



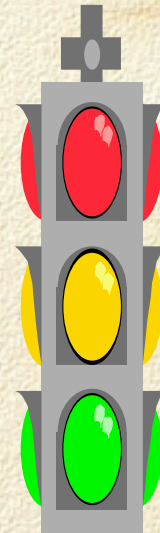
Madame C.J. Walker
1910-1919



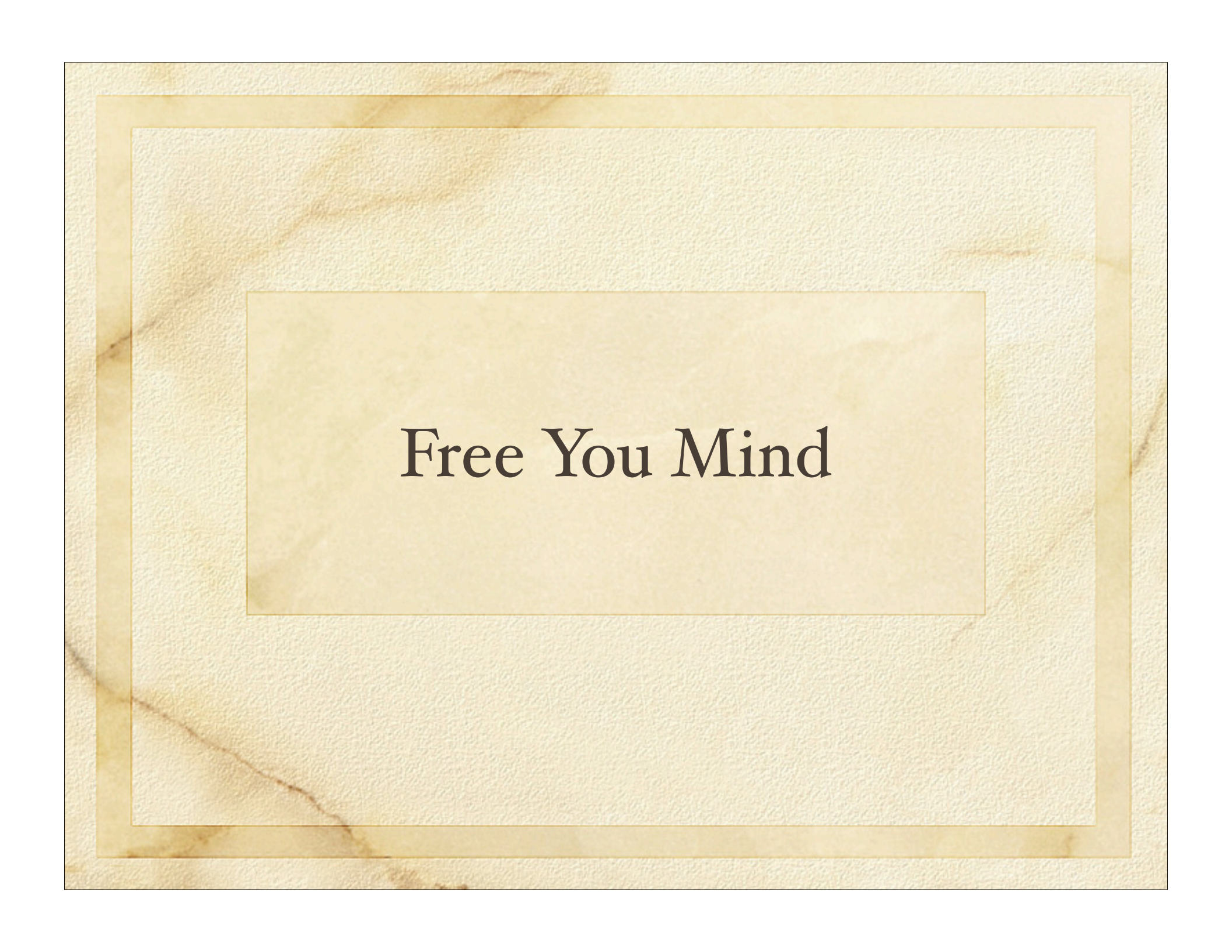
Lewis Latimer
1881



George Grant
1899



Garrett A. Morgan
1923



Free You Mind

Graduation principles

□ 1. Free Your Mind!!!

Blacks in Science: A to Z, **Hattie Carwell**, ISBN 0-682-48911-5

Blacks in Science: ancient and modern, **Ivan Van Sertima**,
ISBN 0-87855-941-8

Black Athena, **Martin Bernald**

□ 2. Time management

7 days x 24 hours 168

sleep 6 hours/day 42

eat 3 hours/day 21

TV 3 hours/day 21

class 18 hours/week 18

study time (18x4) 72

- 6 hours

Graduation principles

- 3. Use all your resources: students, teachers
other students, internet, etc.
- 4. buddy system
- 5. No Gain  No Pain
- Special message to the Females

Potential Salaries for Engineers

- **Ph.D.**
\$78,000-100,000 per year
- M.S.**
\$62,000-75,000 per year
- B.S.**
\$54,000-60,000 per year
Annual Lost Income \$13.6 Billion/year

- **lack of parity**
Lifetime Ph.D. over 2 million dollars