

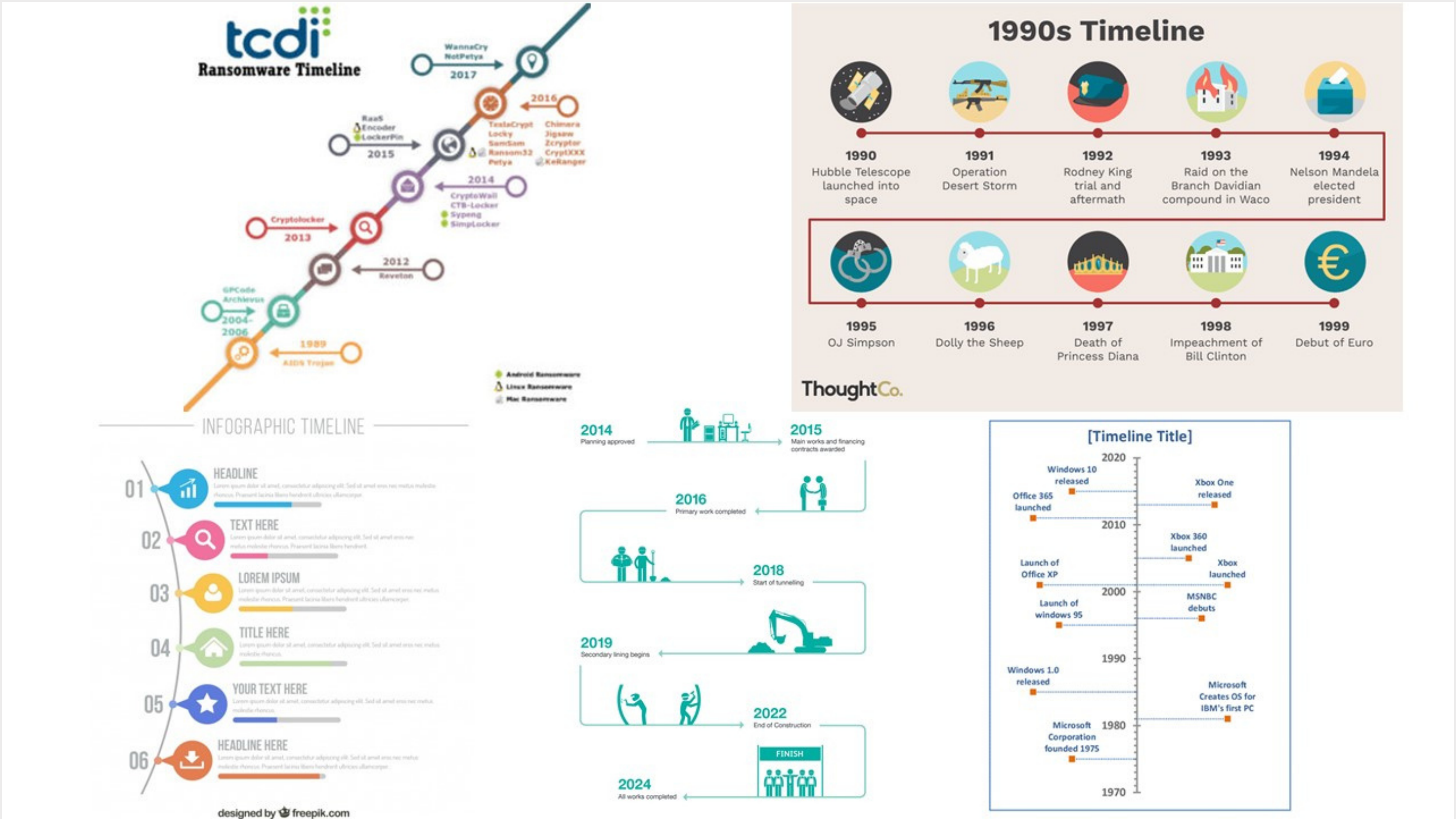


# Timeline

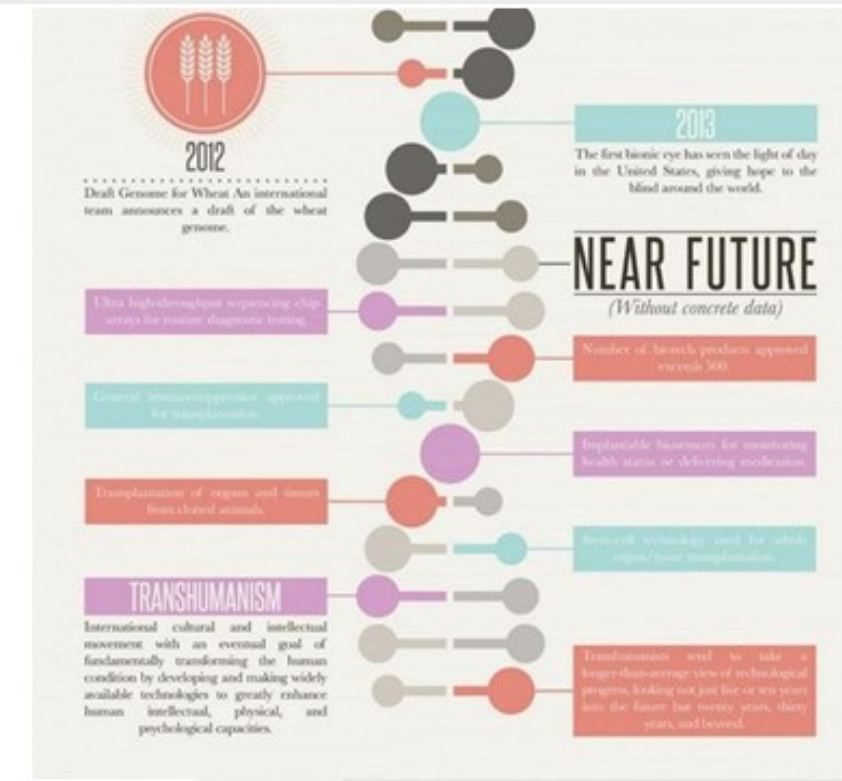
Madeline Walz

Spring 2019 – GRDS 285

# Design Inspiration

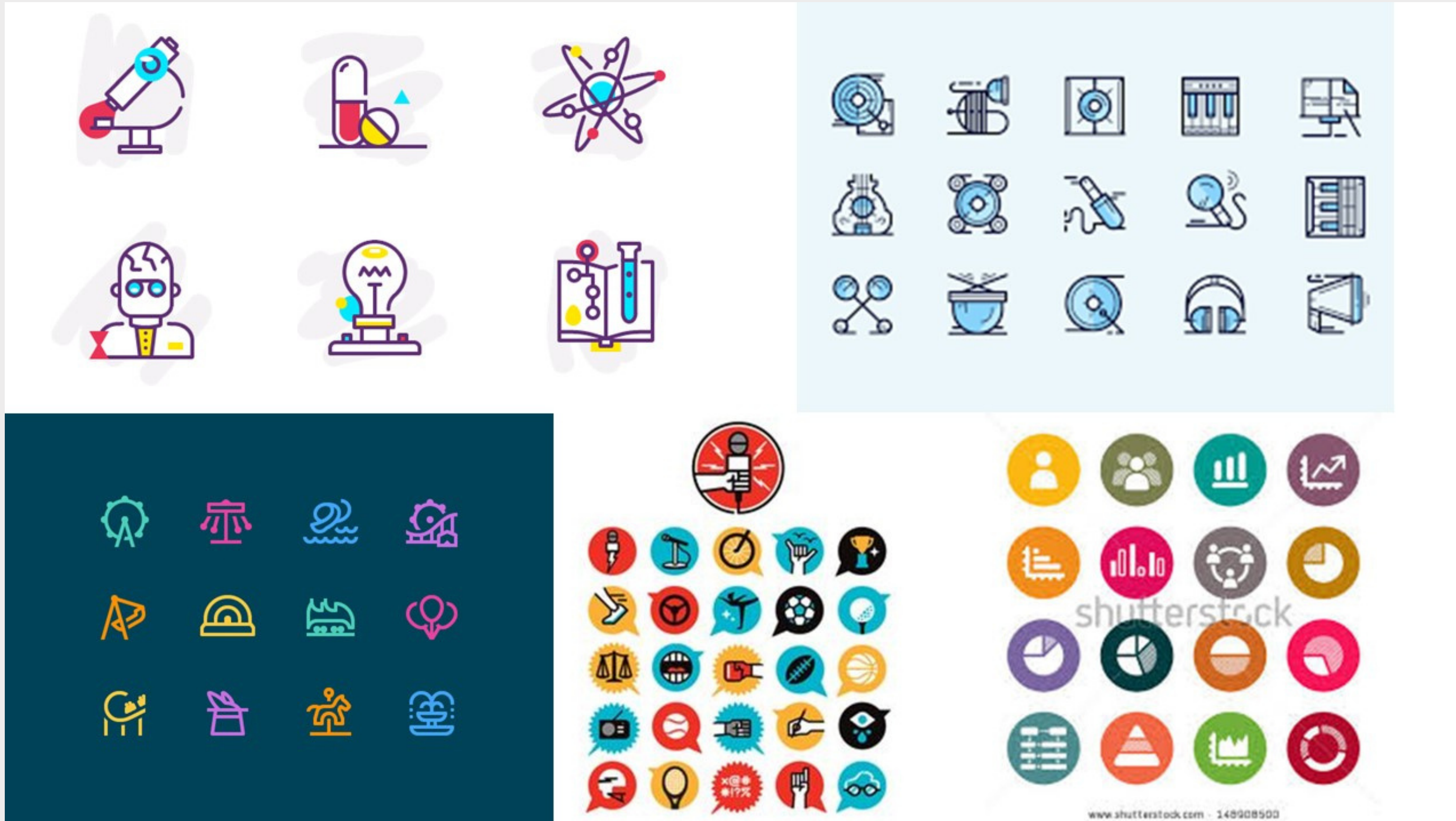


# Design Inspiration





# Design Inspiration





# Topics of Interest

1

**CHURCH HISTORY**

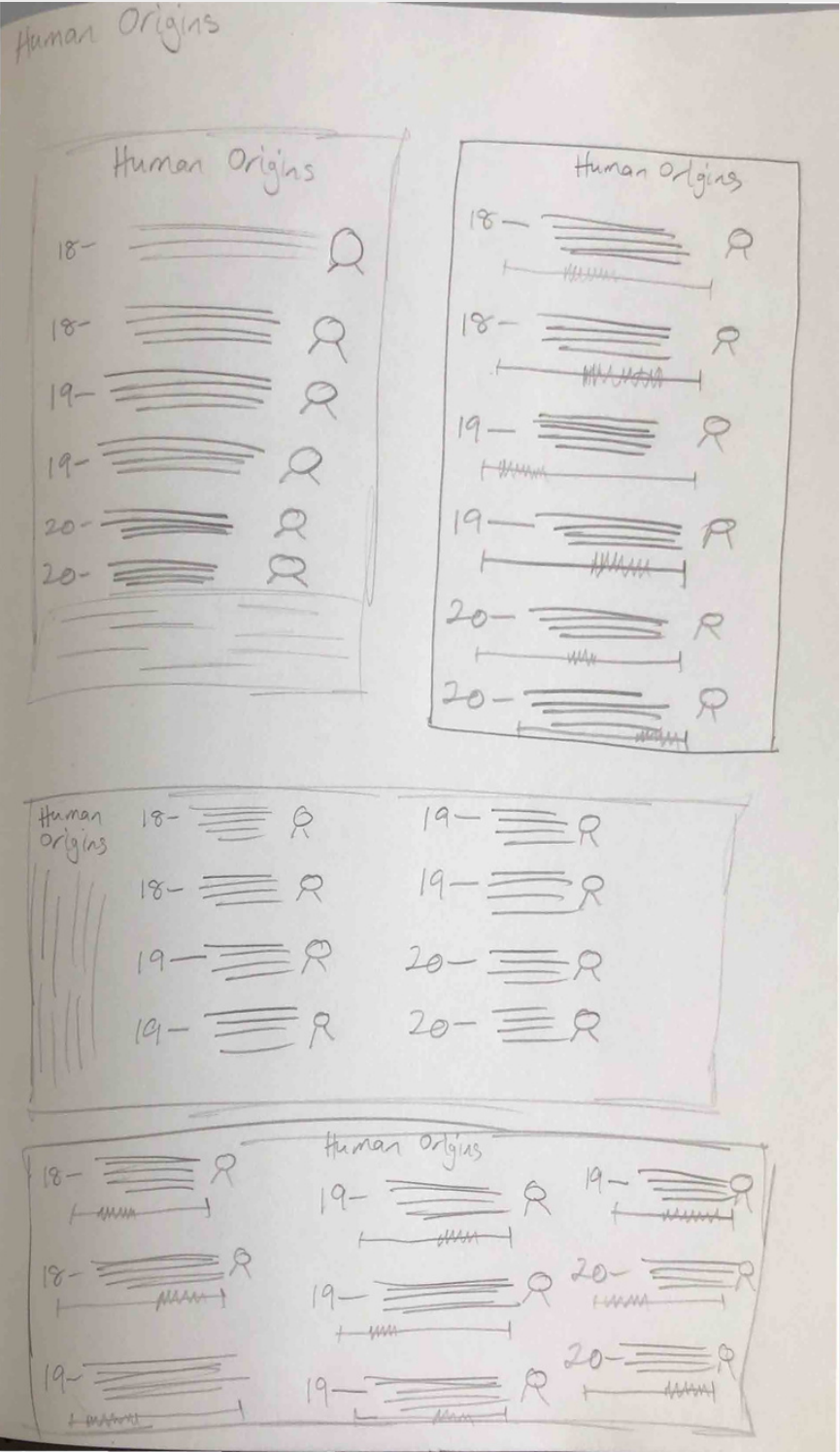
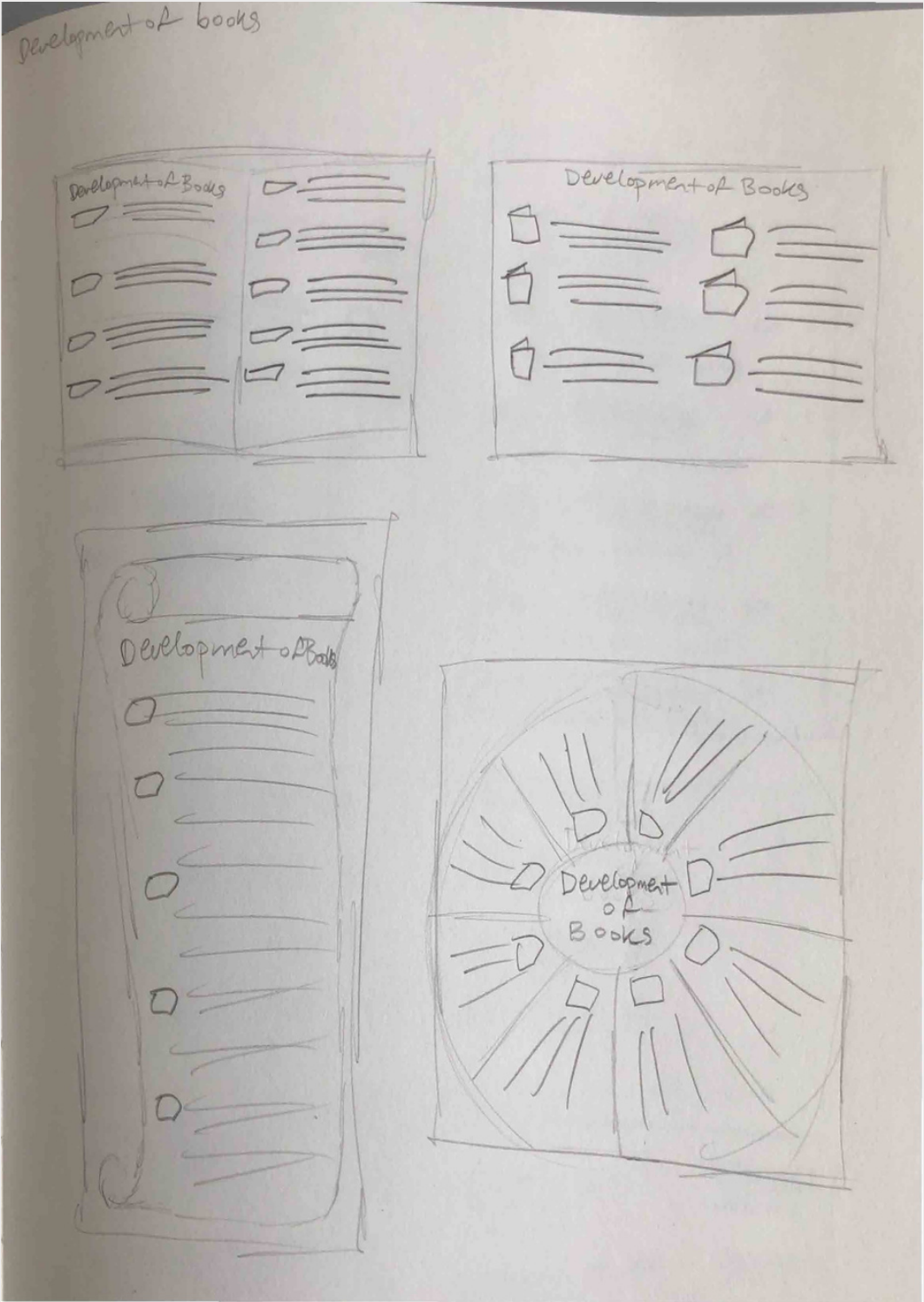
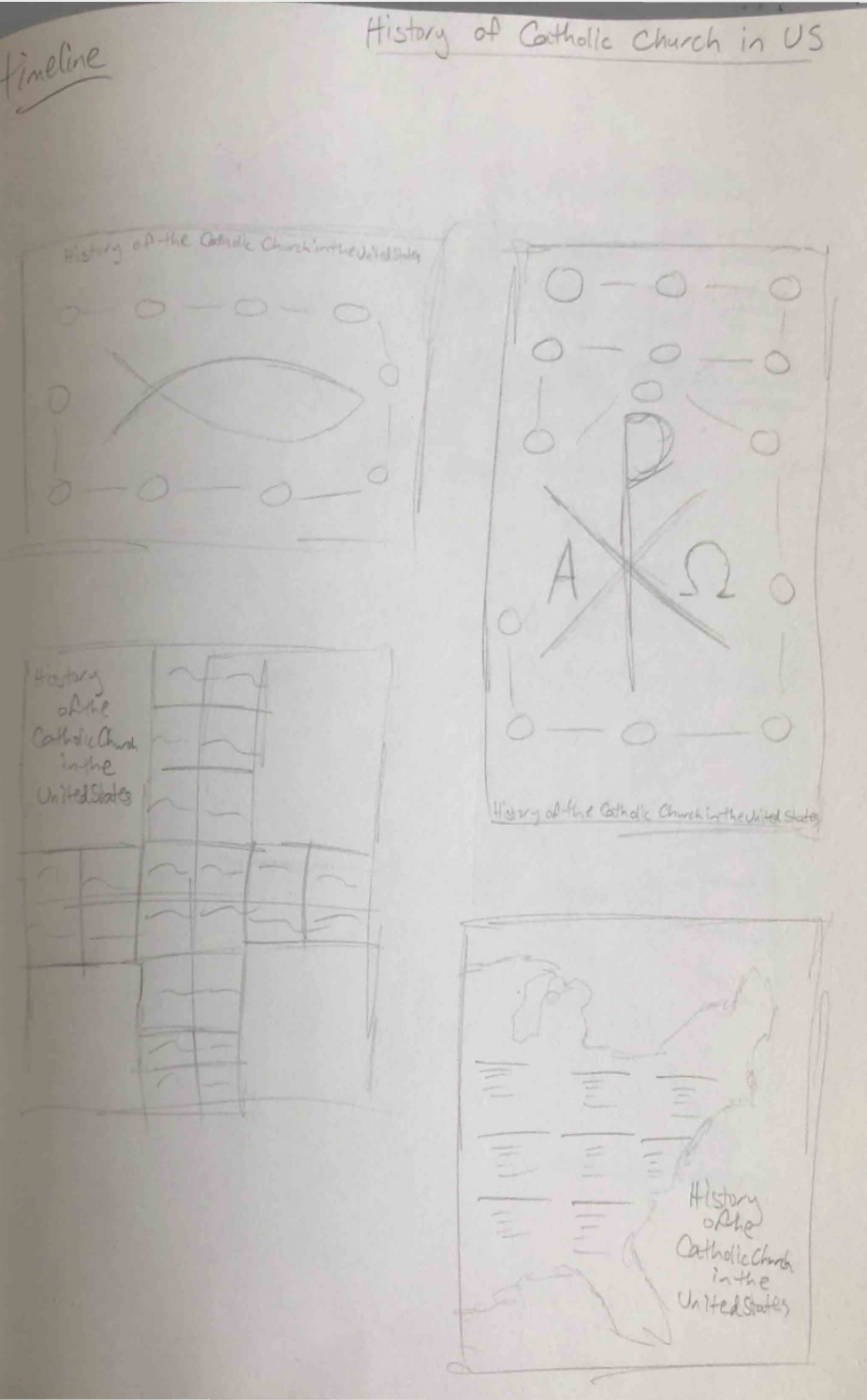
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**DEVELOPMENT OF BOOKS**

3

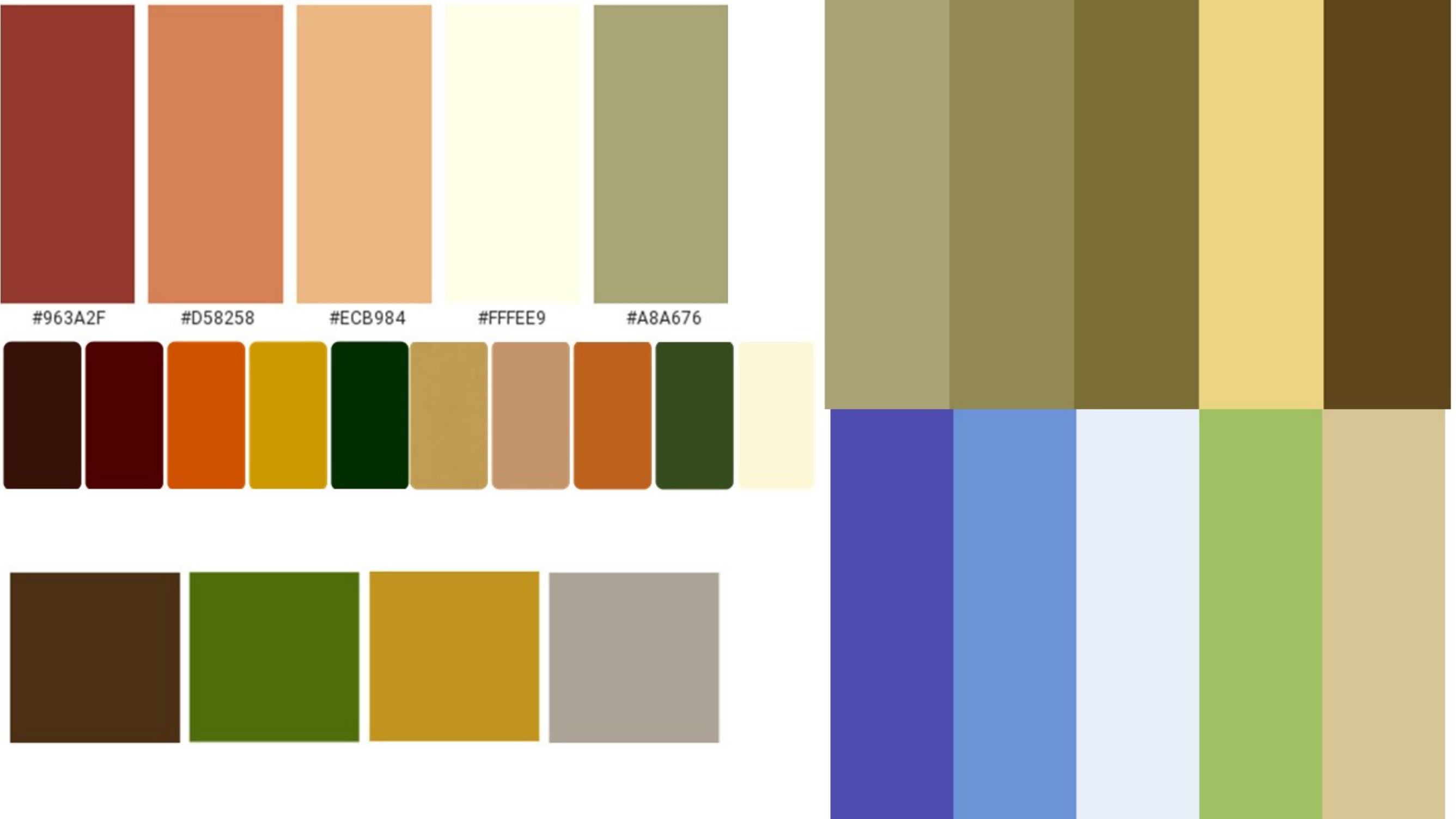
**HUMAN ORIGINS**

# Layout Sketches





# Color Inspiration



# Topics of Interest

1

~~CHURCH HISTORY~~

2

DEVELOPMENT OF BOOKS

3

HUMAN ORIGINS



# Typeface Exploration

Concept 2 — The Development of Books

The  
Development  
of  
Books

Adobe Caslon Pro Regular

The Development  
of Books

Baskerville URW Regular

*The*  
Development  
*of*  
Books

Minion Pro Regular, Minion Pro Italic

The  
Development  
of  
Books

Adobe Garamond Pro Regular,  
Adobe Garamond Pro Italic

The DEVELOPMENT  
of BOOKS

Sabon LT Pro Roman

THE  
Development  
OF  
Books

Centaur Regular

1450 Gutenberg's printing  
press was perfected

Fira Sans Thin, Baskerville URW Regular

1450 Gutenberg's printing  
press was perfected

Forma DJR Micro Extra Light, Adobe Garamond Pro Regular

1450 Gutenberg's printing  
press was perfected

Benton Sans Thin, Sabon LT Pro Roman

1450 Gutenberg's printing  
press was perfected

Menco Light, Minion Pro Regular

1450 Gutenberg's printing  
press was perfected

Interstate Extra Light, Adobe Caslon Pro Regular

1450 Gutenberg's printing  
press was perfected

Acumin Pro Extra Light, Centaur Regular

# Typeface Exploration

Concept 1 — Human Origins

HUMAN ORIGINS

Stencil Regular

Human  
Origins

Citizen OT Bold

HUMAN ORIGINS

Antiquarian Regular

2015

Species: *Homo naledi*

Where: Rising Star Cave, South Africa

Meaning of Name: “naledi” means “star” in Sotho

Its hands are made for climbing, but its feet are made for walking. The fossilized skeletons, from at least 15 individuals, may have been placed there deliberately for burial.

JohnDoe Bold, Palatino Linotype Regular, Palatino Linotype Italic, Palatino Linotype Bold

2015

Species: *Homo naledi*

Where: Rising Star Cave, South Africa

Meaning of Name: “naledi” means “star” in Sotho

Its hands are made for climbing, but its feet are made for walking. The fossilized skeletons, from at least 15 individuals, may have been placed there deliberately for burial.

Attic Antique Regular, Palatino Linotype Regular, Palatino Linotype Italic, Palatino Linotype Bold

HUMAN ORIGINS

Attic Antique Regular

HUMAN ORIGINS

JohnDoe Bold

HUMAN  
ORIGINS

P22 Franklin Caslon Regular

2015

Species: *Homo naledi*

Where: Rising Star Cave, South Africa

Meaning of Name: “naledi” means “star” in Sotho

Its hands are made for climbing, but its feet are made for walking. The fossilized skeletons, from at least 15 individuals, may have been placed there deliberately for burial.

Stencil Regular, Source Sans Pro Regular, Source Sans Pro Italic, Source Sans Pro Semibold

2015

Species: *Homo naledi*

Where: Rising Star Cave, South Africa

Meaning of Name: “naledi” means “star” in Sotho

Its hands are made for climbing, but its feet are made for walking. The fossilized skeletons, from at least 15 individuals, may have been placed there deliberately for burial.

Citizen OT Bold, Adobe Garamond Pro Regular, Adobe Garamond Pro Italic, Adobe Garamond Pro Semibold

2015

Species: *Homo naledi*

Where: Rising Star Cave, South Africa

Meaning of Name: “naledi” means “star” in Sotho

Its hands are made for climbing, but its feet are made for walking. The fossilized skeletons, from at least 15 individuals, may have been placed there deliberately for burial.

Antiquarian Regular, FreightNeo Pro Book, FreightNeo Pro Book Italic, FreightNeo Pro Book Semi

2015

Species: *Homo naledi*

Where: Rising Star Cave, South Africa

Meaning of Name: “naledi” means “star” in Sotho

Its hands are made for climbing, but its feet are made for walking. The fossilized skeletons, from at least 15 individuals, may have been placed there deliberately for burial.

P22 Franklin Caslon Regular, P22 Underground Book, Tisa Sans Pro Italic, P22 Underground DemiBold

When: 335,000-236,000 years ago

Famous Fossils: none (yet!)

When: 335,000-236,000 years ago

Famous Fossils: none (yet!)

When: 335,000-236,000 years ago

Famous Fossils: none (yet!)

When: 335,000-236,000 years ago

Famous Fossils: none (yet!)



# Topics of Interest

1

~~CHURCH HISTORY~~

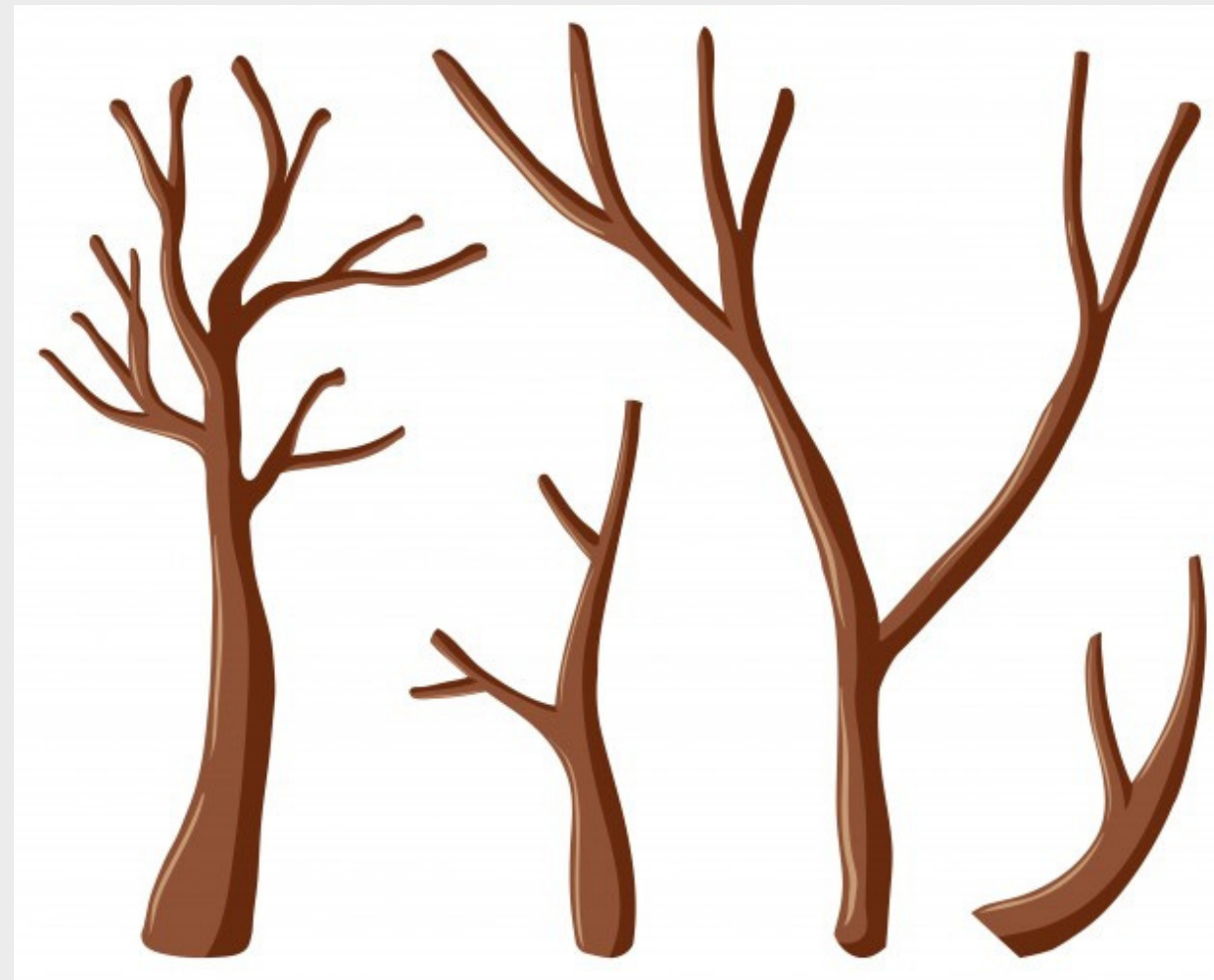
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~~DEVELOPMENT OF BOOKS~~

3

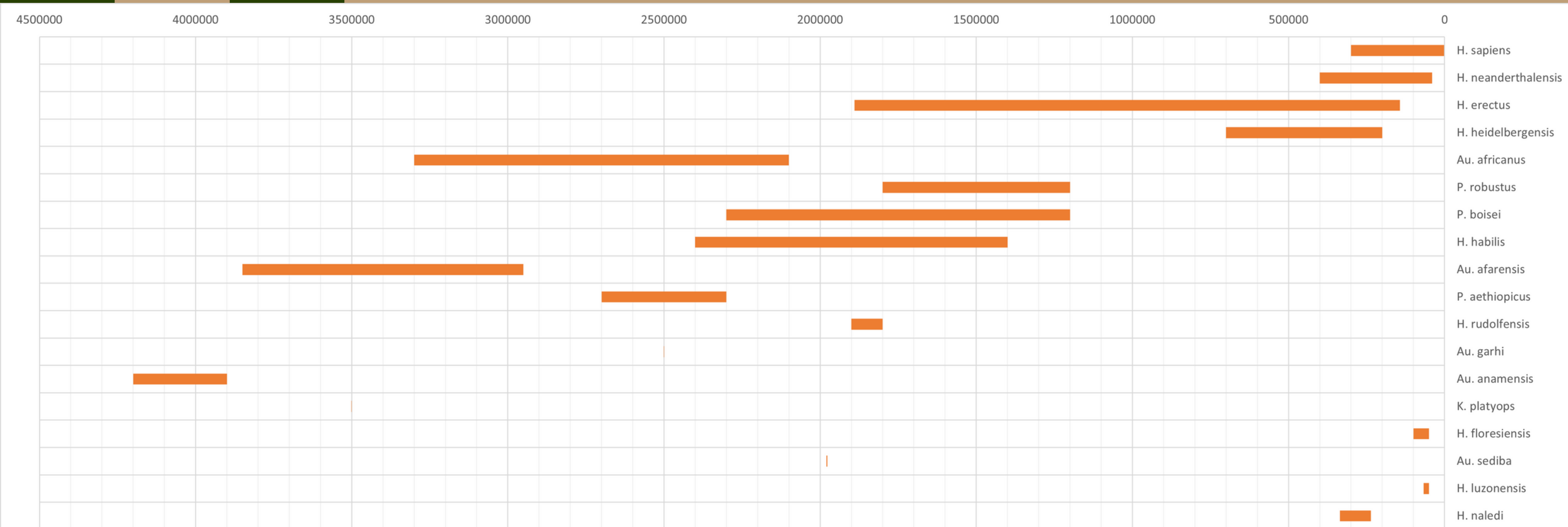
HUMAN ORIGINS

# Reference Images





# Known date ranges of human ancestors



# Research

## Human Origins notes

Sources: National Geographic, Smithsonian Human Origins program

- 4.2-3.9 mya: *Australopithecus anamensis*
  - o East Africa (Lake Turkana, Kenya, and Middle Awash, Ethiopia)
  - o Discovery 1995
  - o Bipedal, climbing
  - o Anam = lake in Turkana language
- 3.85-2.95mya: *Australopithecus afarensis*
  - o East Africa (Ethiopia, Kenya, Tanzania)
  - o Discovery 1974
  - o Lucy's species
  - o Lived in trees and on ground, probably walked upright, ape-like face and brain
- 3.5mya: *Kenyanthropus platyops*
  - o East Africa (West Turkana, Kenya)
  - o Discovery 1999
  - o Name = flat-faced human from Kenya
  - o Unknown size, unknown lineage, unknown if actually new genus and species
- 2.5mya: *Australopithecus garhi*
  - o East Africa (Bouri, Middle Awash, Ethiopia)
  - o Discovery 1990
  - o Garhi = surprise in Afar language
  - o Few samples, possibly transition to longer strides with bipedal walking
  - o Could actually be from another species of the time
  - o Possible tool users
- 3.3-2.1mya: *Australopithecus africanus*
  - o South Africa (South Africa)
  - o Discovery 1924
  - o Taung Child
  - o Similar to *Au. Afarensis*, larger brain, bipedal walking and climbing
  - o 1<sup>st</sup> to establish that early fossil humans occurred in Africa
  - o Oldest known early human from South Africa
- 2.7-2.3mya: *Paranthropus aethiopicus*
  - o East Africa (Turkana basin of Northern Kenya, Southern Ethiopia)
  - o Discovery 1985
  - o Powerful jaw, Australopithecine, little known about this species
- 1.977-1.98mya: *Australopithecus sediba*
  - o South Africa (South Africa)
  - o Discovery 2008
  - o Mix of *Homo* and *Australopithecus* features
  - o Evolution to upright walking
- 2.3-1.2mya: *Paranthropus boisei*
  - o East Africa (Ethiopia, Kenya, Tanzania, Malawi)
  - o Discovery 1959
  - o Powerful jaw, unknown diet, possible tool users
  - o Lived 4x+ longer than *Homo sapiens* have existed
- 1.8-1.2mya: *Paranthropus robustus*
  - o South Africa (South Africa)
  - o Discovery 1938
  - o Large jaw, possible tool users, unknown lineage

- 1.9-1.8mya: *Homo rudolfensis*
  - o East Africa (Northern Kenya, maybe Northern Tanzania and Malawi)
  - o Discovery 1986
  - o Large braincase, longer face, larger teeth
  - o Only 1 good fossil, once identified as *H. habilis*, considered possible *Australopithecus*, unknown lineage
- 2.4-1.4mya: *Homo Habilis*
  - o East and South Africa
  - o Discovery 1960
  - o Habilis means handy man – thought to be 1<sup>st</sup> stone tool maker
  - o Oldest stone tools are slightly older than oldest known *Homo*
  - o Unknown lineage
- 1.89mya-143,000ya: *Homo erectus*
  - o North, East and South Africa; West Asia (Dmanisi, Republic of Georgia); East Asia (China, Indonesia)
  - o Discovery 1891, Indonesia
  - o Turkana Boy, Peking Man, Java Man, aka *Homo ergaster*
  - o Oldest known early humans with modern body proportions
  - o Lived on the ground, walked and maybe ran long distances, large braincase compared to face size but still smaller than other species of the time
  - o Growth rate similar to apes, cared for their old and weak, earliest handaxes (1<sup>st</sup> major stone tool innovation)
  - o 1<sup>st</sup> species known to go beyond Africa, lived 9x longer than *Homo sapiens* have existed
  - o About modern humans' height and weight
- 335,000-236,000ya: *Homo naledi*
  - o South Africa
  - o Discovery 2015, dated 2017
  - o Unknown lineage, hands for climbing, feet for walking, unknown diet, unknown if used tools, unknown why mix of *Au.* and *H* features at this time, possible burial of dead in Rising Star Cave
- 700,000-200,000ya: *Homo heidelbergensis*
  - o Europe, East and South Africa, maybe China
  - o Discovery 1908, Germany
  - o Large browridge, larger braincase, flatter face
  - o 1<sup>st</sup> known to live in colder climates, oldest definite control of fire, used wooden spears, large animal hunters, 1<sup>st</sup> known to build shelters
  - o 1<sup>st</sup> species similar to *H. erectus* and *H. sapiens* that was not called an archaic *Homo sapien*
  - o Possibly lived back to 1.3mya
  - o Probably an ancestor of *Homo sapiens*
- 400,000-40,000ya: *Homo neanderthalensis*
  - o Europe, Southwest to Central Asia
  - o Discovery 1829, Belgium
    - Discovery 1856, Germany, 1<sup>st</sup> to be recognized as early human fossil, 1<sup>st</sup> hominin species named, earlier discoveries in Belgium and Gibraltar identified as same species
  - o Also known as Neanderthals, the closest extinct human relative
  - o Neanderthal = Neander Valley
  - o Adapted for cold, large brains (sometimes larger than *H. sapiens*)
  - o Used and made tools, controlled fire, built shelters, wore clothes, large animal hunters, made symbolic or ornamental objects, buried their dead, marked the graves with offerings (1<sup>st</sup> known to do so)
  - o Mixed with *Homo sapiens*

- 100,000-50,000ya: *Homo floresiensis*
  - o Liang Bua cave, island of Flores, Indonesia
  - o Discovery 2003 (tools age range 190,000-50,000ya)
  - o The Hobbit, Flores Man
  - o 3'6", tiny brains, large teeth for their size, shrugged-forward shoulders, no chin, receding forehead, large feet, short legs
  - o Made and used tools, hunted small elephants and large rodents, dealt with giant Komodo dragons, may have used fire
  - o Two theories for their size:
    - Island dwarfism – long-term isolation on a small island with limited food and few predators, also seen in extinct pygmy elephants on Flores
    - Possibly already small when they arrived on Flores
  - o Unknown culture, unknown how they got to Flores, unknown if they had contact with other *Homo*, unknown lineage
- Ca. 50,000-67,000ya: *Homo luzonensis*
  - o Island of Luzon, Philippines
  - o Discovery 2010, recently announced
  - o Mix of ancient and advanced features
  - o Unknown how they arrived on Luzon, unknown lineage, unknown if they interacted with other *Homo*, possible tool users, possible hunters
  - o Small size (like *H. floresiensis*) may make features look more primitive than they really are
- 300,000ya-present: *Homo sapiens*
  - o Africa, now worldwide
  - o 1<sup>st</sup> described in 1758, but no type specimen (the fossil that gives a species its name)
  - o Larger brain, lighter build, flat and almost vertical forehead, much less browridge, jaw much less forward, less heavy jaw, smaller teeth
- Denisovans:
  - o Unknown origin, unknown lifetime
  - o Known from DNA extracted from modern SE Asians and a few bones: a fragment of a child's pinky, 3 unusually strong molars, and a skull fragment, all found in Denisova cave in Siberia around 2010
  - o Relatives of Neanderthals, lived in Asia for tens of thousands of years
  - o DNA from living Southeast Asians suggest three distinct species, one as different from other Denisovans as they are from Neanderthals
    - Northern Asian group separated from others by Himalayas
    - Southernmost group separated from others by Wallace's Line deepwater
    - Southern Asia group in between the two
  - o Lived alongside humans for thousands of years
  - o One group outlived the Neanderthals, coexisted and mixed with *Homo sapiens* in New Guinea until about 30,000ya, maybe even 15,000ya
  - o 2018: two waves of Denisovan interbreeding with *Homo sapiens* identified
  - o Probably split from Neanderthal relatives about 400,000 years ago – Neanderthals to Europe and Middle East, Denisovans to Asia
  - o 3<sup>rd</sup> group of Denisovans only interbred with *H. sapiens* from New Guinea, possibly thousand of years after both Denisovans and Neanderthals were thought to be extinct



# Condensed Information

Species: *Australopithecus anamensis* When: 4.2-3.9 million years ago (mya)  
Where: Lake Turkana, Kenya, and Middle Awash, Ethiopia Famous Fossils: N/A  
Meaning of name: “anam” means “lake” in Turkana  
Species Facts: *Au. anamensis* may have been capable of both climbing and bipedal walking.

Species: *Australopithecus afarensis* When: 3.85-2.95 mya  
Where: Ethiopia, Kenya, and Tanzania Famous Fossils: Lucy  
Meaning of name: “afar” refers to the Afar Depression in Ethiopia where it was first found  
Species Facts: *Au. afarensis* lived both in trees and on the ground and probably walked upright.

Species: *Kenyanthropus platyops* When: 3.5 mya  
Where: West Turkana, Kenya Famous Fossils: N/A  
Meaning of name: flat-faced human from Kenya  
Species facts: It is unknown how this species fits into the human family tree, and if it actually is a new genus and species.

Species: *Australopithecus garhi* When: 2.5 mya  
Where: Bouri Formation, Middle Awash, Ethiopia Famous Fossils: N/A  
Meaning of name: “garhi” means “surprise” in Afar  
Species Facts: *Au. garhi* may show a transition to longer strides when bipedal walking. It could actually be a member of a different species from this time. They may have used tools.

Species: *Australopithecus africanus* When: 3.3-2.1 mya  
Where: South Africa Famous Fossils: Taung Child, Mrs. Ples  
Meaning of name: “africanus” is the Latin form of “Africa”  
Species Facts: *Au. africanus* was the first species found to establish that early fossil humans came from Africa. It is the oldest known early human from South Africa. It is similar to *Au. afarensis*, with a larger brain, probably capable of both climbing and bipedal walking.

Species: *Paranthropus aethiopicus* When: 2.7-2.3mya  
Where: Turkana basin, Northern Kenya, and Southern Ethiopia Famous Fossils: the Black Skull  
Meaning of name: “aethiopicus” means “from Ethiopia”  
Species Facts: *P. aethiopicus* had a powerful jaw, like the other two *Paranthropus* species, but not much else is known about this species.

Species: *Australopithecus sediba* When: 1.977-1.98mya  
Where: South Africa Famous Fossils: N/A  
Meaning of name: “sediba” means “fountain” or “wellspring” in Sesotho  
Species Facts: *Au. sediba* shows an evolution to upright walking.

Species: *Paranthropus boisei* When: 2.3-1.2mya  
Where: Ethiopia, Kenya, Tanzania, Malawi Famous fossils: Nutcracker Man  
Meaning of name: refers to Charles Boise, who funded the expeditions of *P. boisei* discoverers Louis and Mary Leakey  
Species facts: *P. boisei* lived over four times longer than our species, *Homo sapiens*, have existed. They had a powerful jaw, like the other two *Paranthropus* species, and may have used tools.

Species: *Paranthropus robustus* When: 1.8-1.2mya  
Where: South Africa Famous fossils: N/A  
Meaning of name: “robustus” means “strongly built” in Latin  
Species facts: *P. robustus* had a large jaw, like the other two *Paranthropus* species, and may have used tools. It is unknown how this species fits into the other species in the human family tree.

Species: *Homo rudolfensis* When: 1.9-1.8mya  
Where: Northern Kenya, possibly northern Tanzania and Malawi Famous fossils: N/A  
Meaning of name: refers to Lake Rudolf, where it was found  
Species facts: There is only one good fossil of *H. rudolfensis*, and it was once identified as *Homo habilis*. It is unknown how this species fits into the human family tree.

Species: *Homo habilis* When: 2.4-1.4mya  
Where: East and South Africa Famous fossils: Twiggy, Cindy, Jonny’s Child  
Meaning of name: “habilis” means “handy man”  
Species name: *H. habilis* is thought to be the first stone tool maker, but it is unknown how this species fits into the human family tree.

Species: *Homo erectus* (also known as *Homo ergaster*) When: 1.89mya-143,000 years ago (ya)  
Where: North, east, and south Africa; Dmanisi, Republic of Georgia; China, Indonesia Famous fossils: Turkana Boy, Peking Man, Java Man  
Meaning of name: “Erectus” means “upright.” “Ergaster” means “working.”  
Species facts: *H. erectus* is the first species known to have gone beyond Africa, and lived nine times longer than *Homo sapiens*, our species, have existed. It lived on the ground, and is credited with the first major stone tool innovation, the hand axe. They cared for their old and weak members and were the first species known to have modern human body proportions.

Species: *Homo naledi* When: 335,000-236,000ya  
Where: Rising Star Cave, South Africa Famous fossils: N/A  
Meaning of name: “naledi” means “star” in the Sotho language  
Species facts: *H. naledi* was dated just two years ago. Its hands are designed for climbing, but its feet are designed for walking. The fossilized skeletons, from at least fifteen people, may have been placed there deliberately for burial.

Species: *Homo heidelbergensis* When: 700,000-200,000ya  
Where: Europe, east and south Africa, possibly China Famous fossils: Kabwe  
Meaning of name: refers to Heidelberg, Germany, where it was discovered  
Species facts: *H. heidelbergensis* was the first species known to live in colder climates, and the first known to have control of fire, and the first known to build shelters. They used wooden spears to hunt large animals. *H. heidelbergensis* was the first species similar to *H. erectus* and *H. sapiens* that was not called an archaic *H. sapiens*. It is probably an ancestor of our species, *H. sapiens*, and may have lived as far back as 1.3mya.

Species: *Homo neanderthalensis* When: 400,000-40,000ya  
Where: Europe, southwest to central Asia Famous fossils: N/A  
Meaning of name: “Neanderthal” means “Neander Valley”  
Species facts: *H. neanderthalensis*, also known as Neanderthals, are the closest known extinct human

relative. It was the first hominin (human ancestor) species named, and the first to be recognized as early human fossils. When it was discovered in Germany in 1856, scientists realized that earlier discoveries in Belgium and Gibraltar were from the same species. *H. neanderthalensis* was adapted for the cold, used and made tools, controlled fire, built shelters, wore clothes, and hunted large animals. They made symbolic or ornamental objects, and buried their dead, sometimes marking the graves with offerings—the first species known to do so. Their brains were as large as, and sometimes larger than, those of our species, *H. sapiens*. They had contact with, and mixed genetically with, *H. sapiens*.

Species: *Homo floresiensis* When: 100,000-50,000ya  
Where: Liang Bua cave, Flores Island, Indonesia Famous fossils: Flores Man  
Meaning of name: refers to the island of Flores  
Species facts: Nicknamed the Hobbit, *H. floresiensis* was only 3’6” in height. They had tiny brains, but made and used tools, hunted small elephants and large rodents, dealt with giant Komodo dragons, and may have used fire. There are two main theories for why they were so small. They could be an example of island dwarfism, caused by long-term isolation on a small island with limited food and few predators. It is seen in extinct pygmy elephants also found on Flores. They could also have been small already when they arrived on Flores. It is unknown how they got to Flores, if they had any contact with the other species of *Homo*, and how they fit into the human family tree.

Species: *Homo luzonensis* When: 67,000-50,000ya  
Where: Callao Cave, Luzon Island, the Philippines Famous fossils: Callao Man  
Meaning of name: refers to the island of Luzon  
Species facts: *H. luzonensis* was discovered in 2010, but was very recently announced as a new species. It has a mix of ancient and modern features, but its small size, similar to that of *H. floresiensis*, may make its features look more primitive than they really are. It may have used tools and hunted. It is unknown how they arrived on Luzon, if they interacted with the other species of *Homo*, and how they fit into the human family tree.

Species: *Homo sapiens* When: 300,000ya-present  
Where: Africa, now worldwide Famous fossils: N/A  
Meaning of name: “wise man” in Latin  
Species facts: *H. sapiens* were first described in 1758, but has no type specimen. A type specimen is the fossil that gave a species its name.

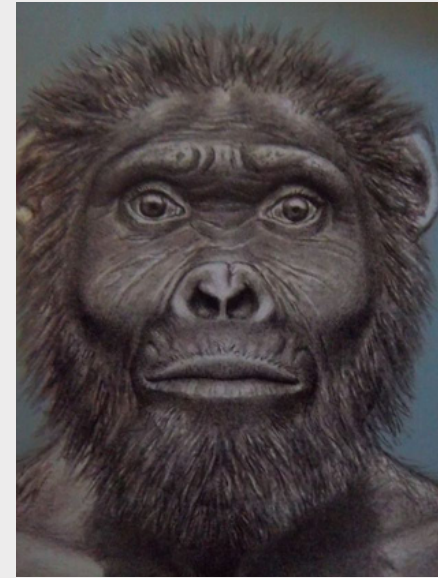
Species: Denisovans (not yet classified) When: unknown, possibly as recently as 15,000ya  
Where: probably Africa originally, then Asia Famous fossils: N/A  
Meaning of name: refers to Denisova Cave, Siberia  
Species facts: The Denisovans are one of the biggest mysteries of the human family tree. Around 2010, a fragment of a child’s pinky finger, three unusually strong molars, and a fragment of a skull were found in Denisova Cave in Siberia. DNA extracted from the bones and found in modern southeast Asians identified them as three distinct, but probably related, species. They probably lived alongside modern humans for thousands of years. One of the three species outlived the Neanderthals, coexisting and mixing with *H. sapiens* until about 30,000 years ago. It is now believed this group may have mixed with *H. sapiens* until about 15,000 years ago, thousands of years after Denisovans and Neanderthals were thought to be extinct.



# Vectors of Human Ancestors



Australopithecus  
afarensis (Lucy)



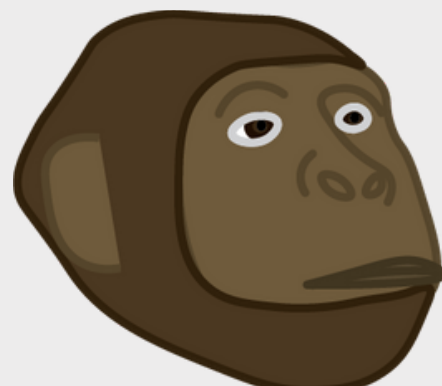
Australopithecus  
garhi



Australopithecus  
africanus



Australopithecus  
sediba



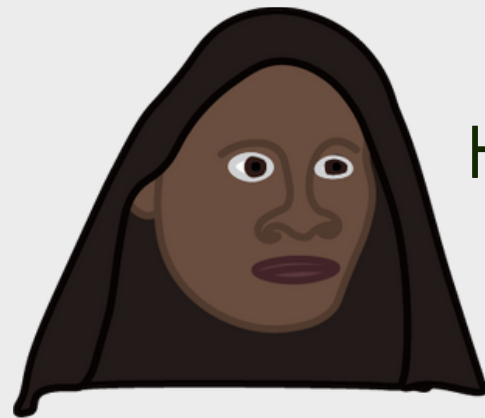
Australopithecus  
anamensis



Homo erectus  
(Upright Man)



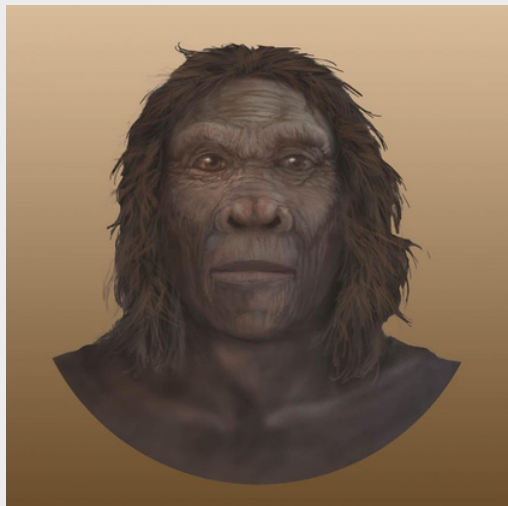
# Vectors of Human Ancestors



Homo Floresiensis  
(The Hobbit)



Homo  
luzonensis



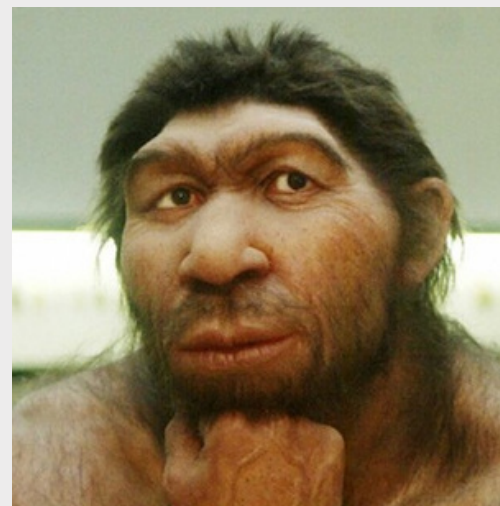
Homo Habilis  
(Handy Man)



Homo naledi  
(recent discovery)



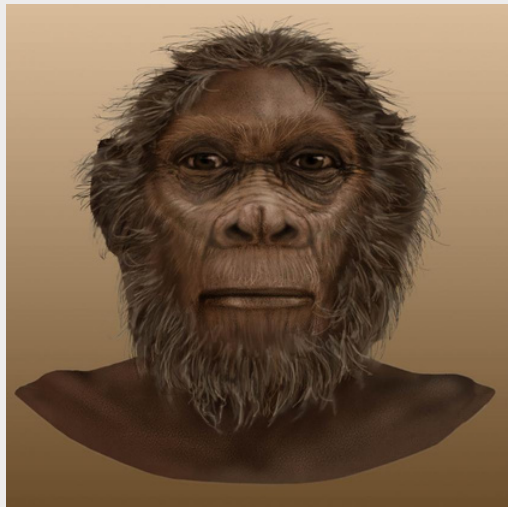
Homo  
heidelbergensis



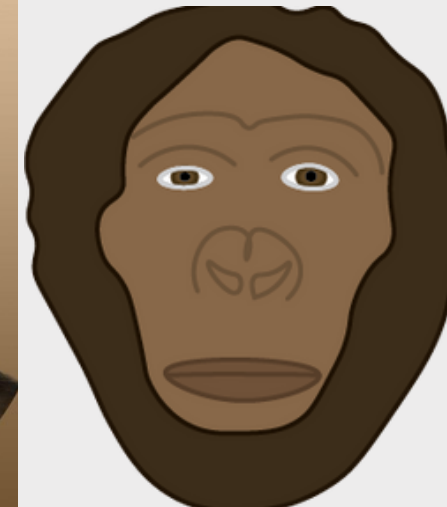
Homo  
neanderthalensis



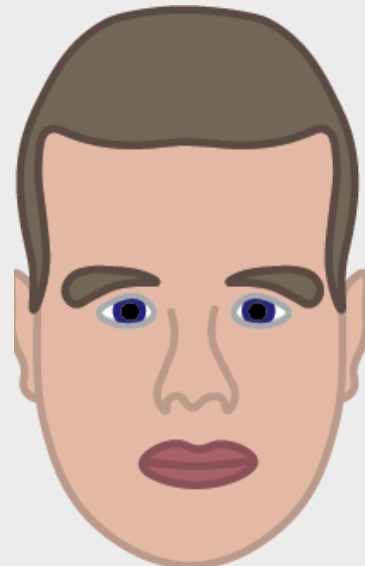
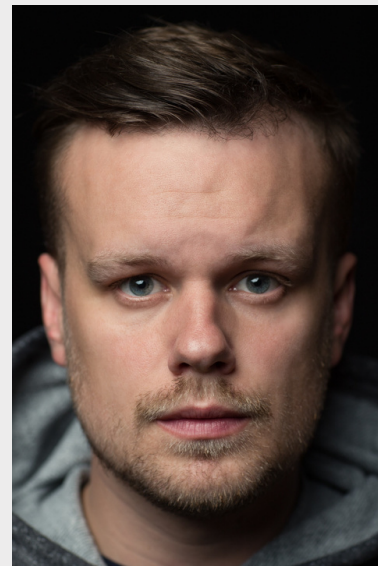
# Vectors of Human Ancestors



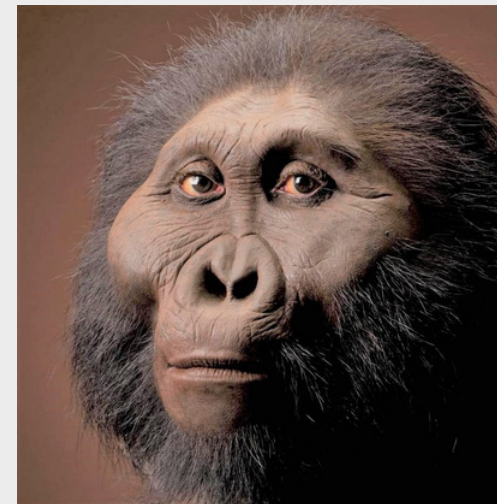
Homo  
rudolfensis



Paranthropus  
aethiopicus



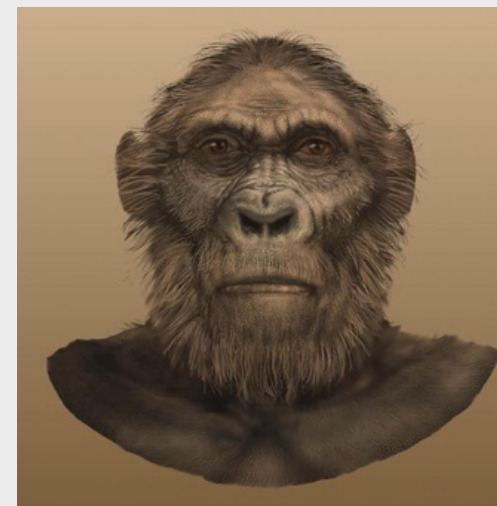
Homo Sapiens  
(Wise Man)



Paranthropus  
boisei



Kenyanthropus  
platyops

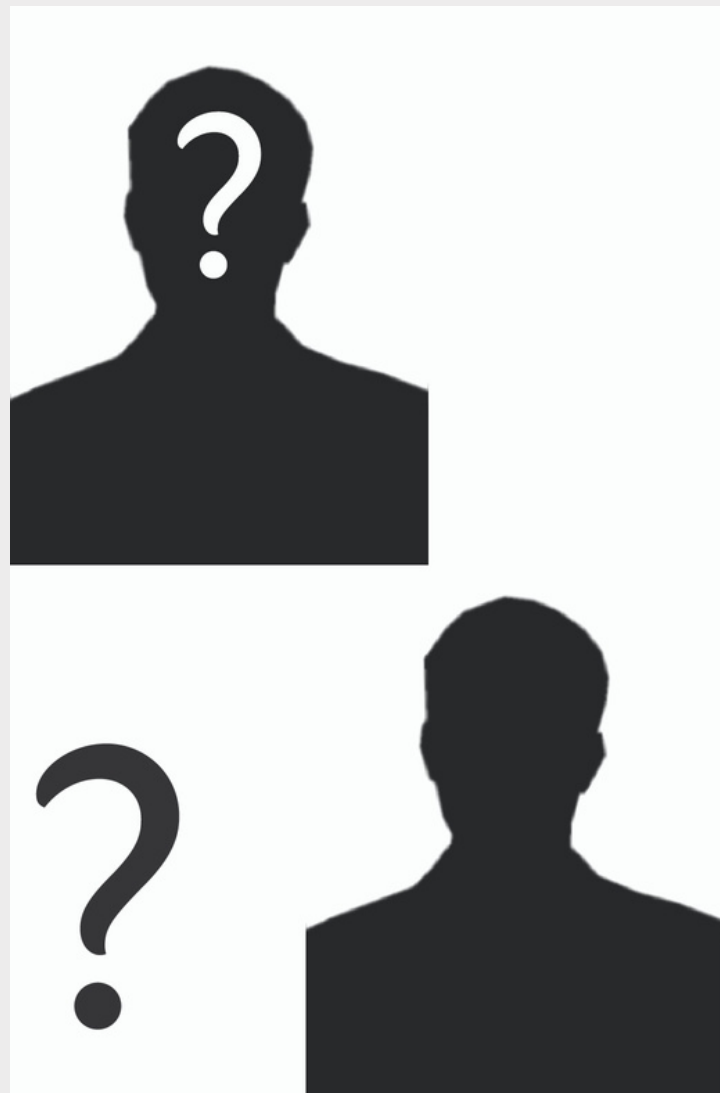


Paranthropus  
robustus



# Denisovan Icons

When I did this project, the appearance of the Denisovans was not known. A probable model has since been created from DNA



Icon Ideas



Chosen Icon



DNA Reconstruction



# First Drafts

One column, full width.

Title and description at bottom.

Background is a tree, representing a family tree.

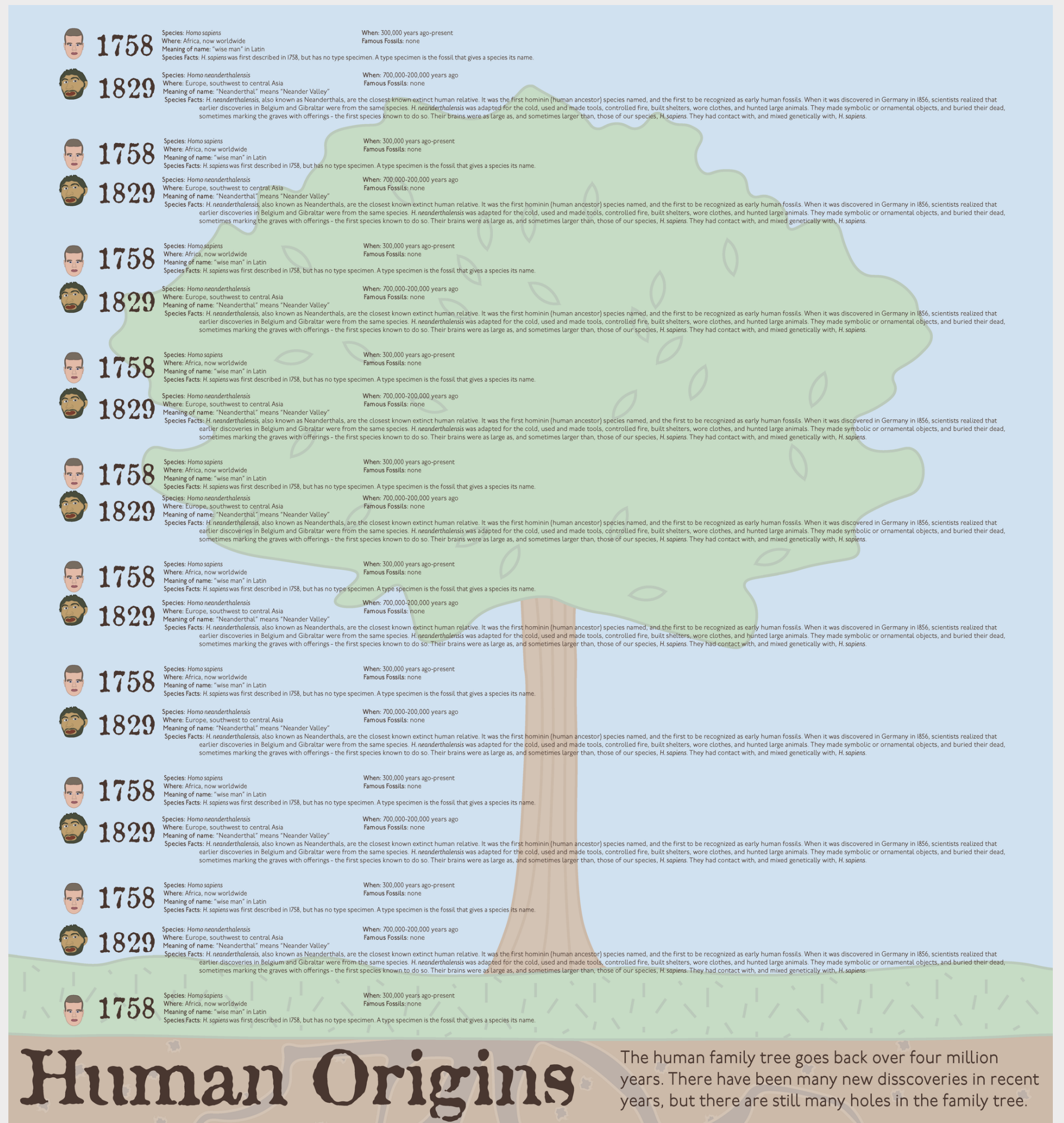
Neanderthals and our species as placeholders for full information.

## Problems:

Not an interesting grid layout.

Lines are too long.

Background image is not used in design.





# First Drafts

Two columns, equal width.

Title and description at bottom.

Background is a tree, representing a family tree.

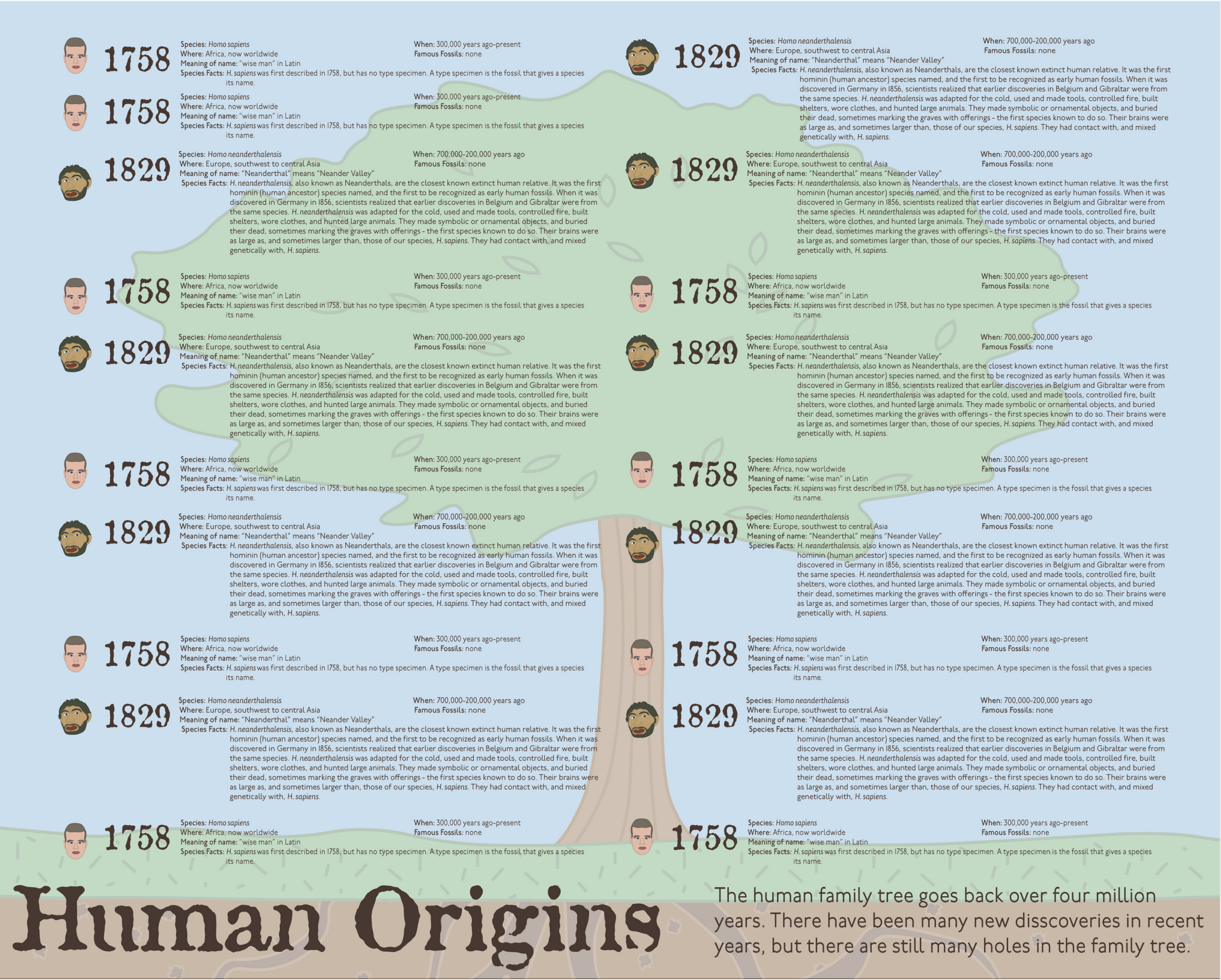
Neanderthals and our species as placeholders for full information.

Date for our species is year species was named.

Problems:

Not an interesting grid layout.

Background image is not used in design.





# First Drafts

Two columns, equal width.

Title and description at bottom.

Background is tree branches,  
representing a family tree.

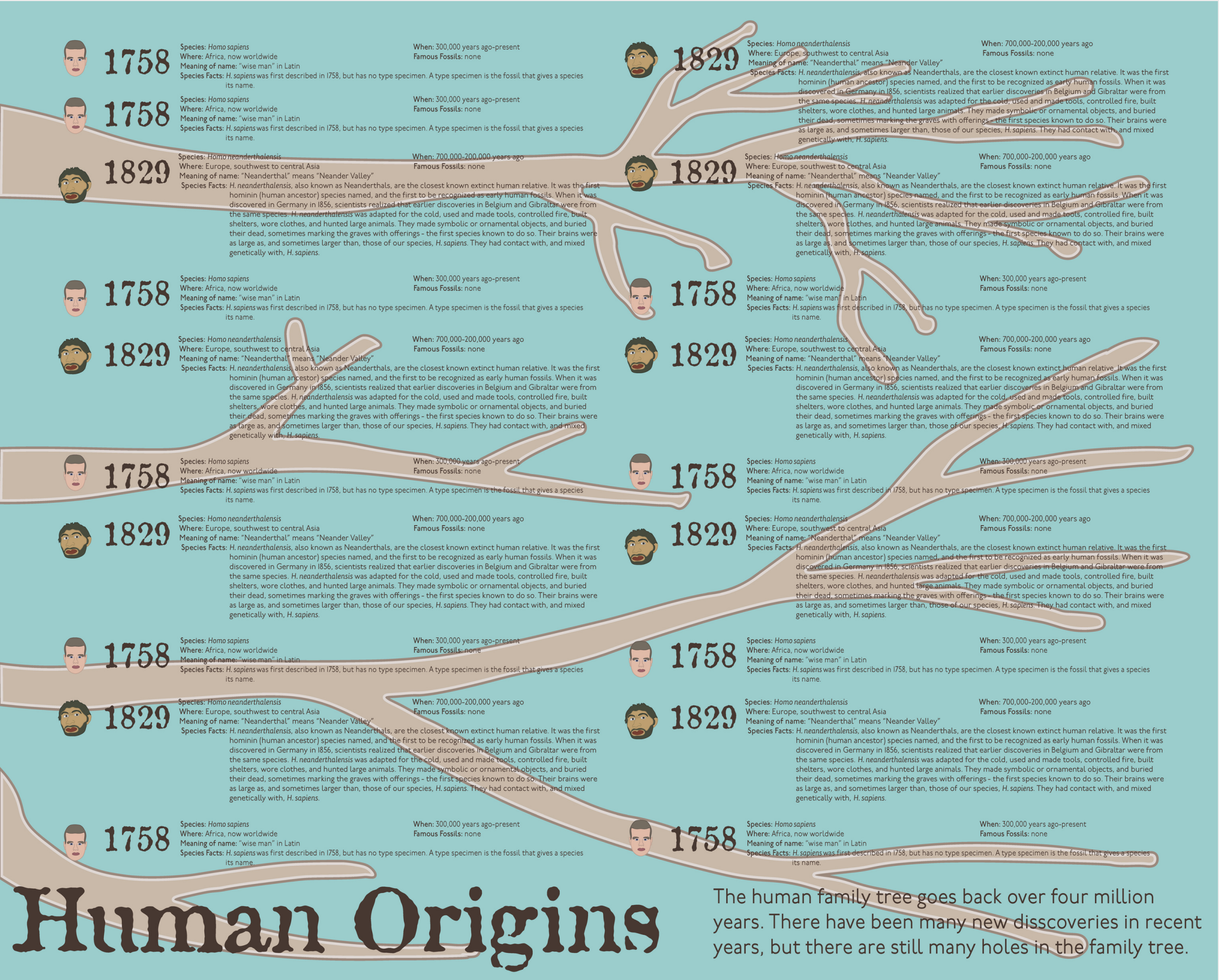
Neanderthals and our species as  
placeholders for full information.

Date for our species is year  
species was named.

Problems:

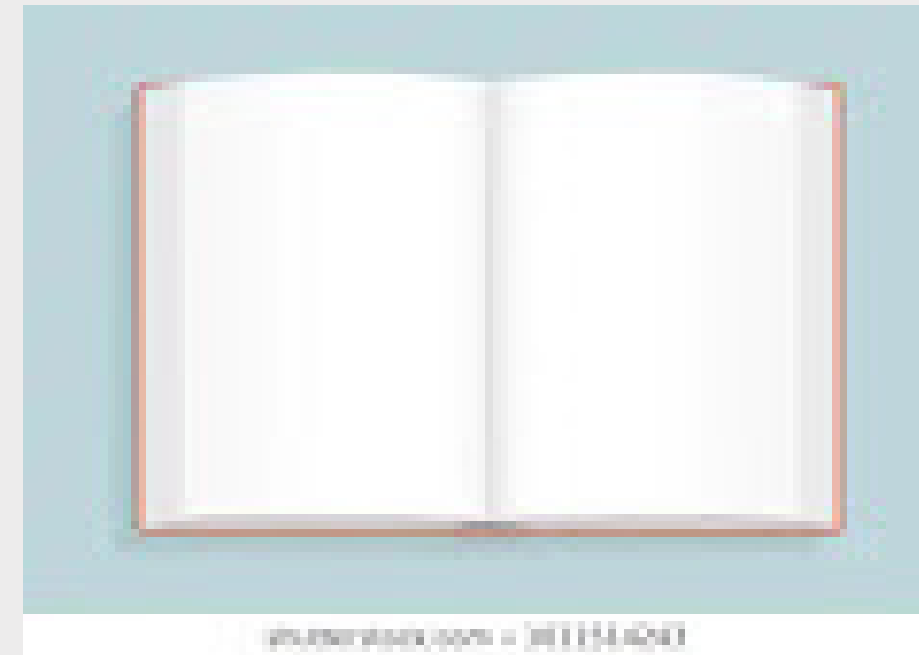
Not an interesting grid layout.

Background image is not used  
in design.





# New reference images





# Second draft

Four-column grid, placed on pages of a book.

Title and description at top left.

All species (listed previously) in order of discovery.

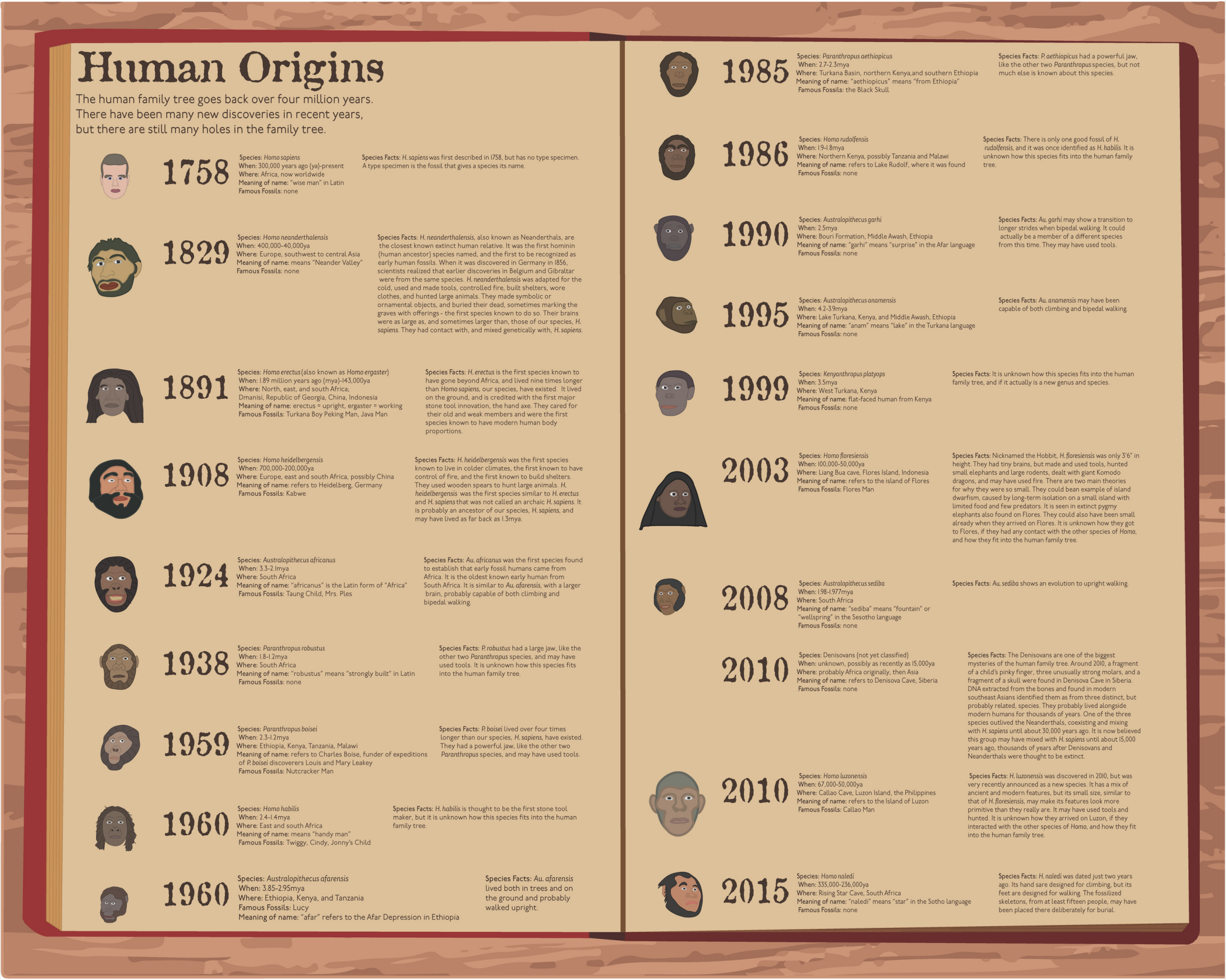
No icon placed for Denisovans.

Date for our species is year species was named.

Problems:

Grid is better, but still not an interesting layout.

Book is too flat.





# Final draft

Six-column grid, placed on pages of a book.

Title at top of left page, centered.

Description at top of right page, aligned left.

All species (listed previously) in order of discovery.

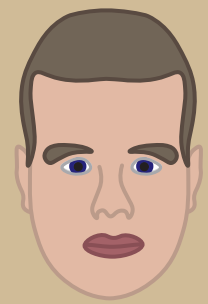
Icon in place for Denisovans.

Year for our species is year species was named.





# Human Origins



1758

## *Homo sapiens*

When: 300,000 years ago (ya)-present  
Where: Africa, now worldwide  
Meaning of name: "wise man" in Latin  
Famous Fossils: none

*H. sapiens* was first described in 1758, but has no type specimen. A type specimen is the fossil that gives a species its name.



1829

## *Homo neanderthalensis*

When: 400,000-40,000ya  
Where: Europe, southwest to central Asia  
Meaning of name: means "Neander Valley"  
Famous Fossils: none

Neanderthals are the closest known extinct human relative. *H. neanderthalensis* built shelters, wore clothes, and made ornamental objects. They buried their dead, sometimes marking the graves with offerings. Their brains were sometimes larger than ours.



1891

## *Homo erectus*

When: 1.89 million years ago (mya)-143,000ya  
Where: Africa, Indonesia, Republic of Georgia  
Meaning of name: means "upright"  
Famous Fossils: Turkana Boy, Peking Man

*H. erectus* is the first species known to have gone beyond Africa, and lived nine times longer than our species has existed. It is credited with the first hand axe. They cared for their old and weak members and were the first species known to have modern human body proportions.

The human family tree goes back over four million years. There have been many new discoveries in recent years, but there are still many holes in the family tree.



1985

*Paranthropus aethiopicus*  
When: 2.7-2.3mya  
Where: Kenya, Ethiopia  
Meaning of name: means "from Ethiopia"  
Famous Fossils: the Black Skull

*P. aethiopicus* had a powerful jaw, like the other two *Paranthropus* species, but not much else is known about it.

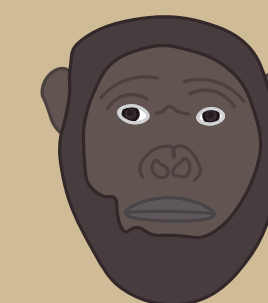


1986

## *Homo rudolfensis*

When: 1.9-1.8mya  
Where: Northern Kenya, Tanzania, Malawi  
Meaning of name: refers to Lake Rudolf  
Famous Fossils: none

There is only one good fossil of *H. rudolfensis*, and it was once identified as *H. habilis*. It is unknown how this species fits into the human family tree.

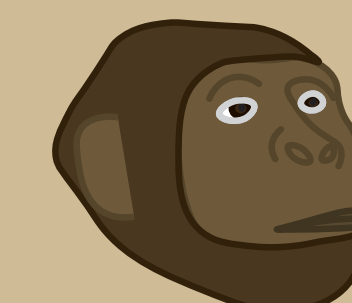


1990

## *Australopithecus garhi*

When: 2.5mya  
Where: Ethiopia  
Meaning of name: "surprise" in Afar  
Famous Fossils: none

*Au. garhi* may show a transition to longer strides when bipedal walking. It could actually be a member of a different species from this time. They may have used tools.



1995

## *Australopithecus anamensis*

When: 4.2-3.9mya  
Where: Kenya and Ethiopia  
Meaning of name: "lake" in Turkana  
Famous Fossils: none

*Au. anamensis* may have been capable of both climbing and bipedal walking.



1908

## *Homo heidelbergensis*

When: 700,000-200,000ya  
Where: Europe, east and south Africa, China  
Meaning of name: Heidelberg, Germany  
Famous Fossils: Kabwe

*H. heidelbergensis* was the first species known to live in colder climates, have control of fire, and build shelters. It was the first species similar to *H. sapiens* that was not called an archaic *H. sapiens*. It is probably an ancestor of our species.

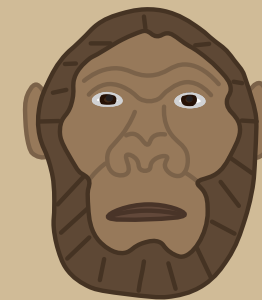


1924

## *Australopithecus africanus*

When: 3.3-2.1mya  
Where: South Africa  
Meaning of name: the Latin form of "Africa"  
Famous Fossils: Taung Child, Mrs. Ples

*Au. africanus* was the first species found to establish that early fossil humans came from Africa. It is the oldest known early human from South Africa. It is similar to *Au. afarensis*, probably capable of both climbing and bipedal walking.



1938

## *Paranthropus robustus*

When: 1.8-1.2mya  
Where: South Africa  
Meaning of name: "strongly built" in Latin  
Famous Fossils: none

*P. robustus* had a large jaw, like the other two other two *Paranthropus* species, and may have used tools. It is unknown how this species fits into the human family tree.

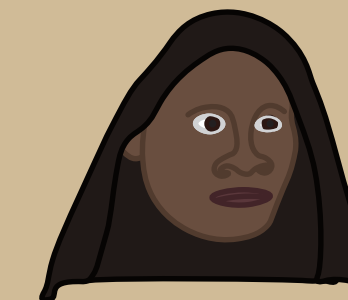


1999

## *Kenyanthropus platyops*

When: 3.5mya  
Where: West Turkana, Kenya  
Meaning of name: flat-faced human from Kenya  
Famous Fossils: none

It is unknown how this species fits into the human family tree, and if it actually is a new genus and species.



2003

## *Homo floresiensis*

When: 100,000-50,000ya  
Where: Liang Bua cave, Flores Island, Indonesia  
Meaning of name: refers to the island of Flores  
Famous Fossils: Flores Man

Nicknamed the Hobbit, *H. floresiensis* was very short. They had tiny brains, but made and used tools, hunted, and may have used fire. It is unknown how they got to Flores, if they had any contact with the other species of *Homo*, and how they fit into the human family tree.



2008

## *Australopithecus sediba*

When: 198-197mya  
Where: South Africa  
Meaning of name: "wellspring" in Sesotho  
Famous Fossils: none

*Au. sediba* shows an evolution to upright walking.



1959

## *Paranthropus boisei*

When: 2.3-1.2mya  
Where: Ethiopia, Kenya, Tanzania, Malawi  
Meaning of name: refers to Charles Boise  
Famous Fossils: Nutcracker Man

*P. boisei* lived over four times longer than our species, *H. sapiens*, have existed. They had a powerful jaw, like the other two *Paranthropus* species, and may have used tools.



1960

## *Homo habilis*

When: 2.4-1.4mya  
Where: East and south Africa  
Meaning of name: means "handy man"  
Famous Fossils: Twiggy, Cindy, Jonny's Child

*H. habilis* is thought to be the first stone tool maker, but it is unknown how this species fits into the human family tree.



1974

## *Australopithecus afarensis*

When: 3.85-2.95mya  
Where: Ethiopia, Kenya, and Tanzania  
Meaning of name: Afar Depression, Ethiopia  
Famous Fossils: Lucy

*Au. afarensis* lived both in trees and on the ground and probably walked upright.

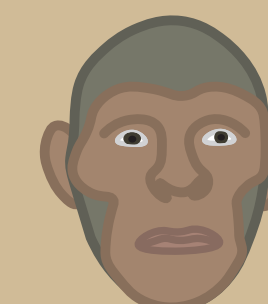


2010

## Denisovans (not yet classified)

When: unknown  
Where: Probably Africa originally, then Asia  
Meaning of name: Denisova Cave, Siberia  
Famous Fossils: none

Ten years ago, A few bone fragments were found in Siberia. DNA extracted from the bones identified three new species. One of the three species may have mixed with *H. sapiens* until about 15,000 years ago.



2010

## *Homo luzonensis*

When: 67,000-50,000ya  
Where: Callao Cave, Luzon Island, Philippines  
Meaning of name: the island of Luzon  
Famous Fossils: Callao Man

*H. luzonensis* was very recently announced as a new species. It seems to have a mix of ancient and modern features. Its size is similar to that of *H. floresiensis*. It is unknown how they arrived on Luzon, if they interacted with other species of *Homo*, and how they fit into the human family tree.



2015

## *Homo naledi*

When: 335,000-236,000ya  
Where: Rising Star Cave, South Africa  
Meaning of name: "star" in Sotho  
Famous Fossils: none

*H. naledi* was dated just two years ago. Its hands are designed for climbing, but its feet are designed for walking. The fossilized skeletons, from at least fifteen people, may have been placed in the cave deliberately for burial.