



THE EPIC JOURNEY OF PRIMATES: BUILDING A NEW EXHIBIT AND TOUR AT THE DUKE LEMUR CENTER MUSEUM OF NATURAL HISTORY

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BACKGROUND

The evolutionary journey of primates is complex, as lineages disperse between continents and adapt to new ecosystems. The fossil collection at the Duke Lemur Center (DLC) is well positioned to tell this story using primate specimens from the Paleogene of North America and Africa, and the Neogene of Africa, South America, and Madagascar.

Founded in 1977, the collection was primarily only accessible to specialized researchers. Visitors and students unfamiliar with fragmentary fossils and obscure taxonomy faced the task of keeping track of the primate journey while following staff through cabinets and drawers. This contrasted with significant education and outreach efforts at the DLC's main campus, where non-invasive research on the colony of over 200 living lemurs was accessible to the public through tours, interpretive exhibits, and classroom outreach.

Our goal was to work together with the DLC education team to fabricate an exhibit that helped visitors access our Big Idea: *Humans and Lemurs Share an Evolutionary History That Spans the Globe*.

Karie L. Whitman designed all our graphics and signs, Alanna G. Marron put together our tour guide training manuals, and Matthew R. Borths was project director.

EXHIBIT SPACE



BEFORE

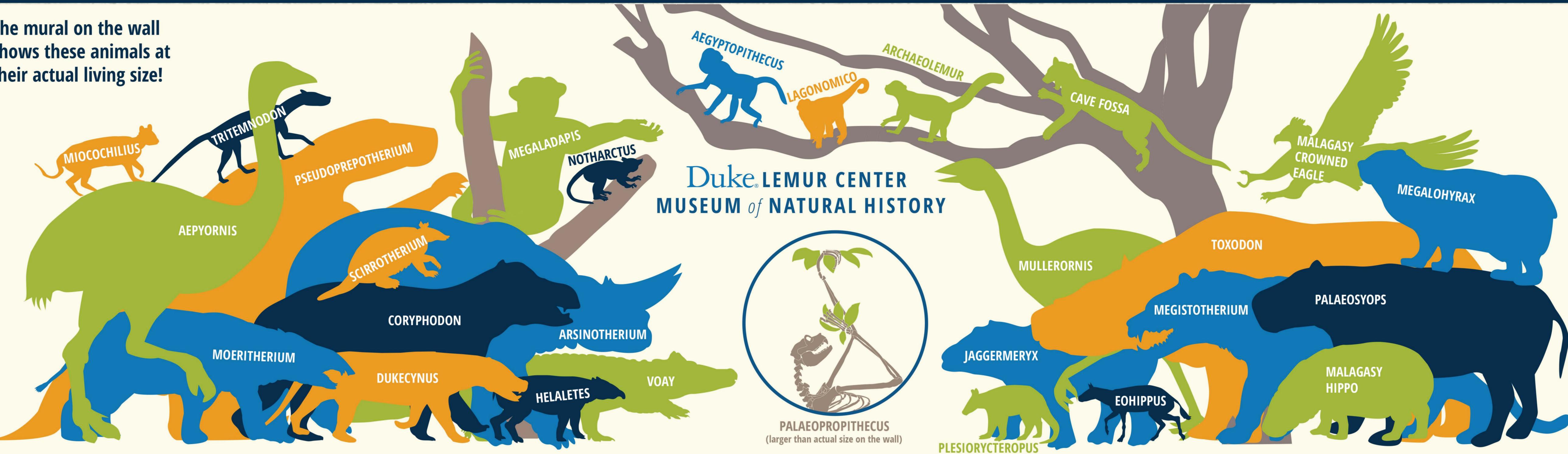
We removed the desk, painted the paneling white, and added the glass cabinetry. Our COVID project was designing all the materials and getting the featured specimens in place with labels and interpretation.



AFTER

Most visitors encounter the Duke Lemur Center and its mission through organized tours, so we designed our exhibit to be tour friendly as well. Using a "choose your own adventure" model, our exhibit can be adapted to various age groups, interests, and tour lengths. In general, the primates are at eye level.

The mural on the wall shows these animals at their actual living size!



COLOR CODING

Since our indoor space is limited, we painted the back wall of our building with a mural that demonstrates the size of some of the fossil creatures we have in our collections. The color-coding for the silhouettes on the wall signifies the collection, location, and time period the animal is from. These same color codes run cohesively throughout the materials in our exhibit and collections.

TIMELINE

Reference timelines are displayed in multiple parts of the exhibit, including a large-scale timeline along the top of the exhibit that delineates the relevant eras from Late Cretaceous to present day. Each collection is placed in temporal context along the timeline with key events that affected primate evolution like the K-Pg extinction, tectonic movements, and climate changes.

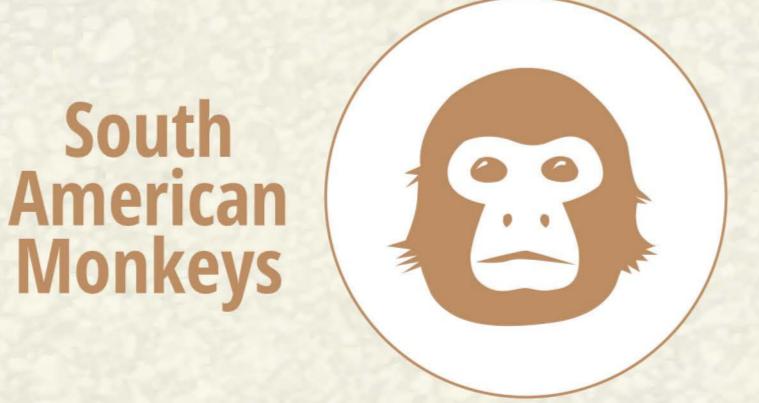


ICONOGRAPHY, LABELING

Primate icons and diet icons help visually connect related specimens, tracking key characteristics and diets through the exhibit.



Archaeolemur edwardsi
Went extinct in the last 1000 years
Archaeolemur and *Hadropithecus* are nicknamed "monkey lemurs" because they had big brains and square teeth like monkeys!



Smilodectes - humerus (arm) and partial foot
50-46 million years old
Based on the muscle attachment sites on limb bones, we can tell that *Smilodectes* was a strong climber that used its back legs to leap like a sifaka or bamboo lemur.



Lagonomico
15-12 million years old
Its name means pancake monkey because the fossil is smashed like a pancake! It is a "giant" relative of Marmosets and Tamarins.



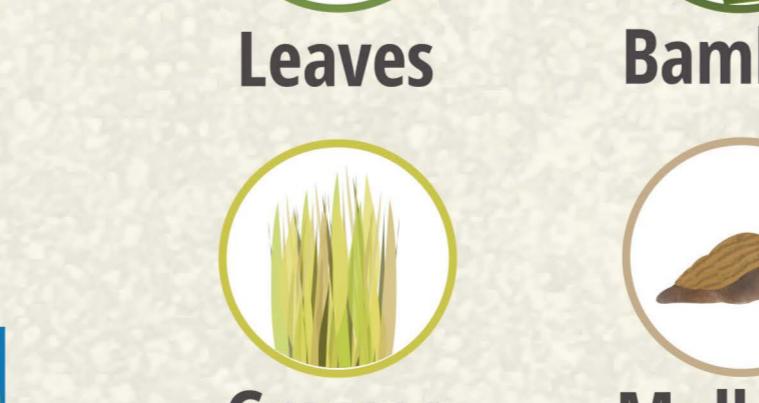
Aegyptopithecus zeuxis
30 million years old
Its name means "Egyptian monkey/ape." It only has two premolars, evidence it's closely related to the ancestor of catarrhines, the group that includes all monkeys and apes from Africa and Eurasia.



Insects



Fruits



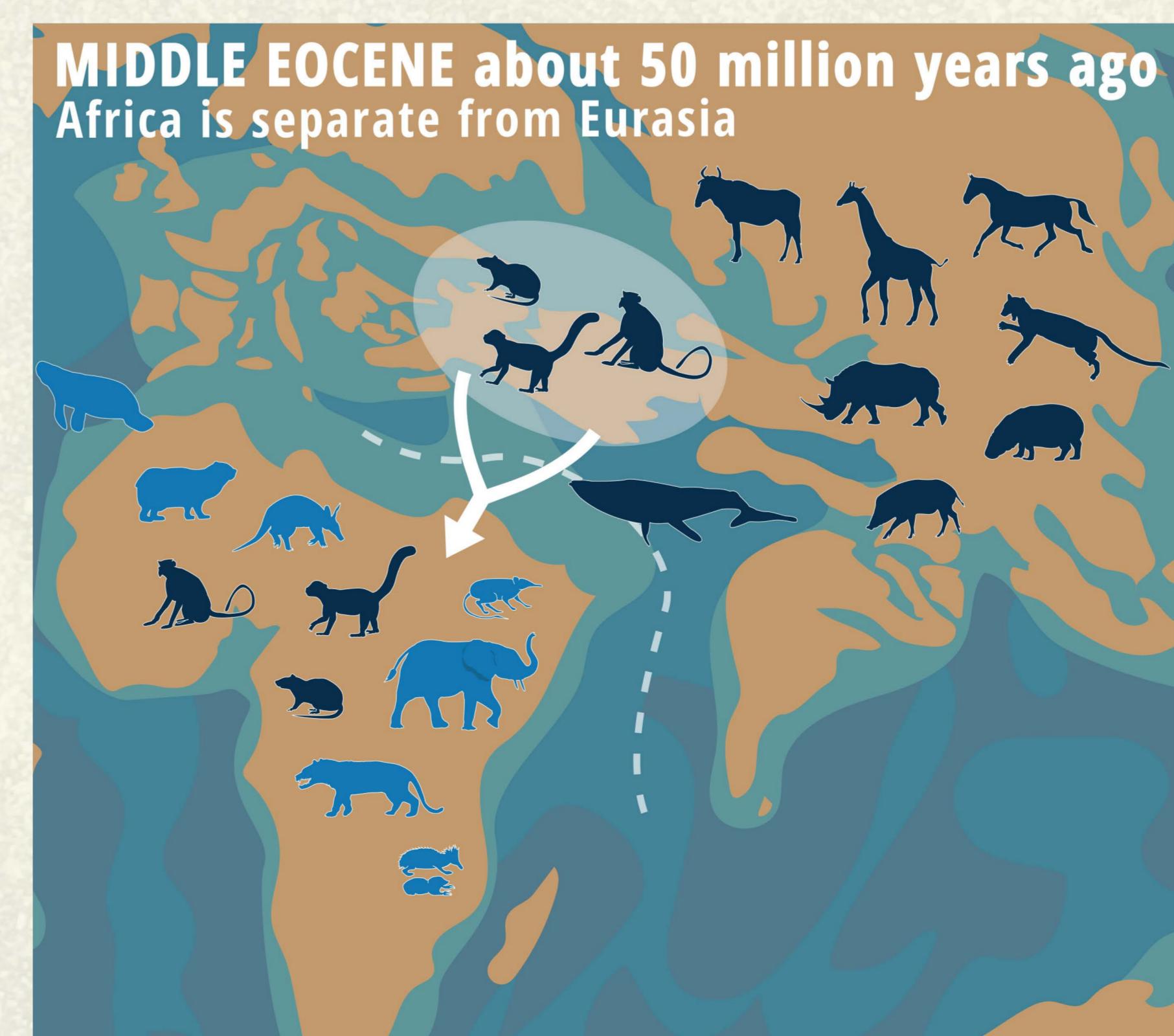
Bamboo



Molluscs



Meat



ORGANIZATION



Locality cards on the top shelves outline the geotemporal context for the fossil specimens below. Primate Quest cards guide guests through key traits that drew researchers to each site.

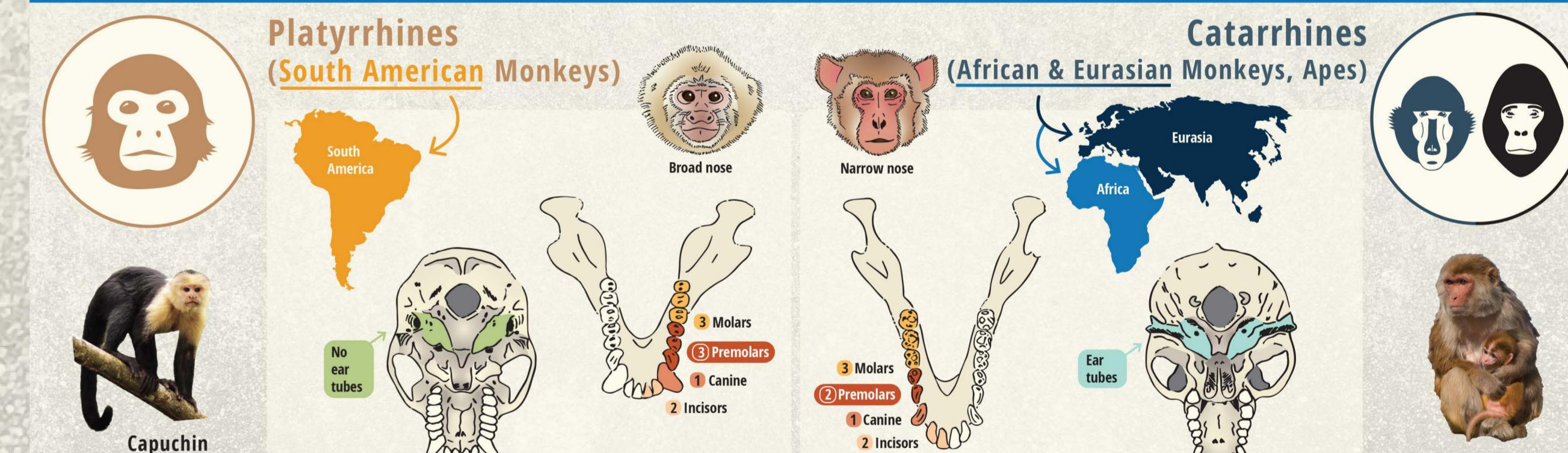
Fossil primates are displayed below extant relatives with key traits emphasized.

Non-primate fossil specimens are displayed below to better illustrate the past environment and what types of creatures filled various niches.

Taxa represented include pantodonts, perissodactyla, hyracoidea, embrithopoda, proboscidea, hyaenodonta, crocodyla, and others!

Primate Quest: Anthropoid Attributes

These two groups began to diverge from one another between 46-38 million years ago. What makes these groups unique?



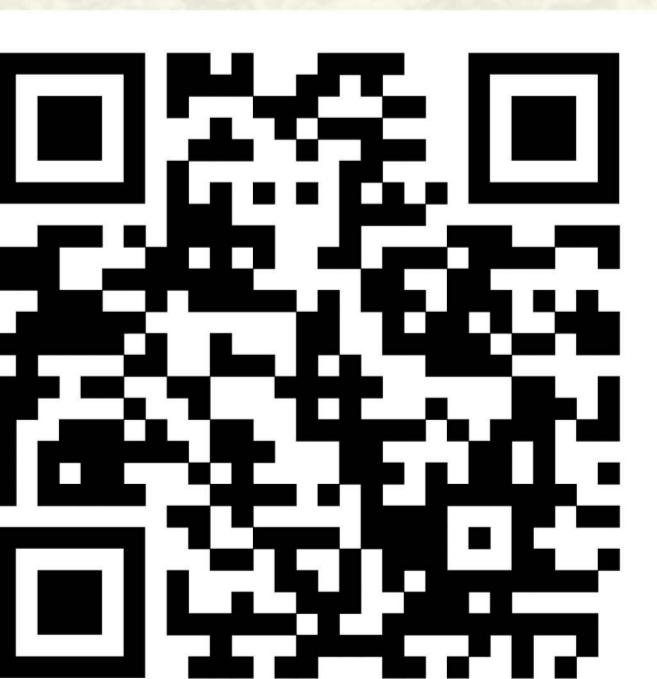
MORE ABOUT OUR EXHIBIT

We designed a lot of material to get as much out of the space as we could, and it certainly does not all fit on this poster! Use the QR codes below to see a walk-through of our exhibit space and the "Life of a Fossil" video we have running in our exhibit - made by our glorious intern of 2022, Regan Collins.

WALK-THROUGH



LIFE OF A FOSSIL



If you have questions, suggestions, or would like to utilize our exhibit for virtual or in-person tours, you can find us online at lemur.duke.edu/fossil

