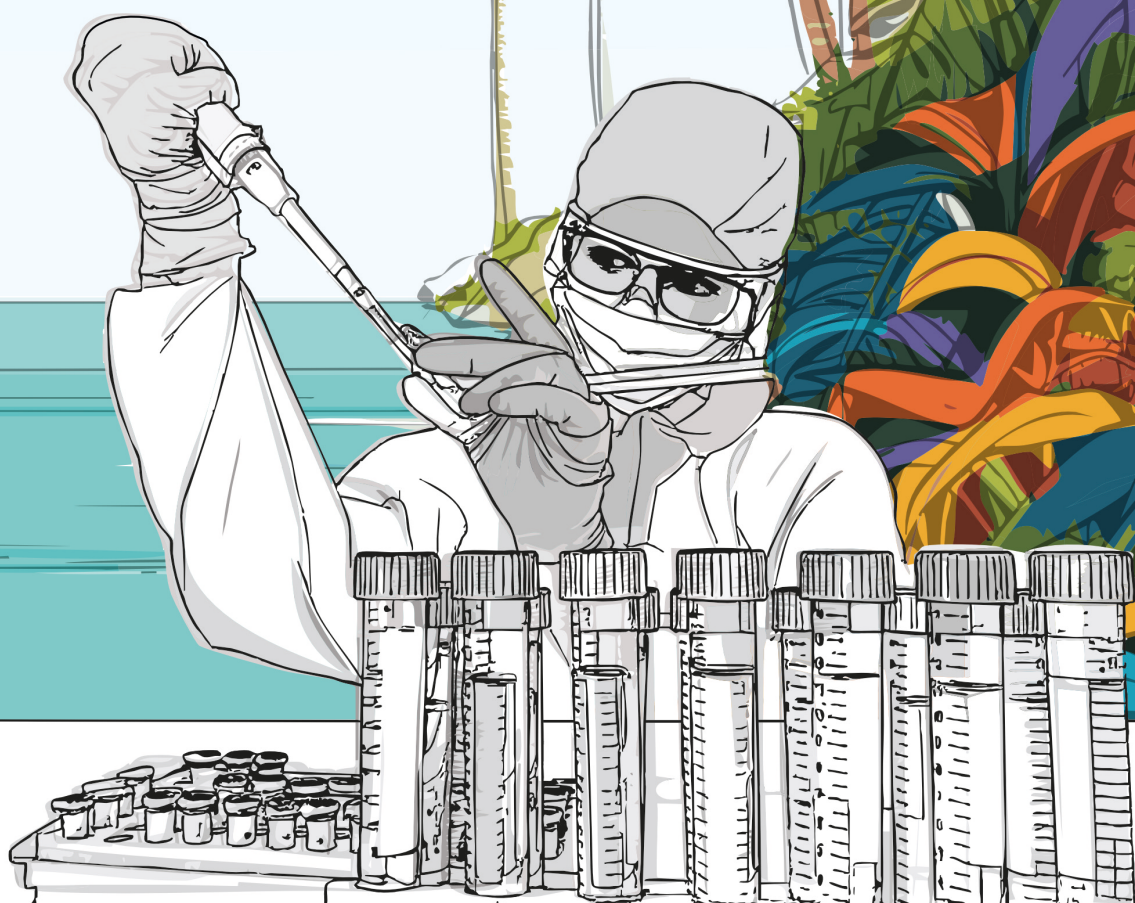
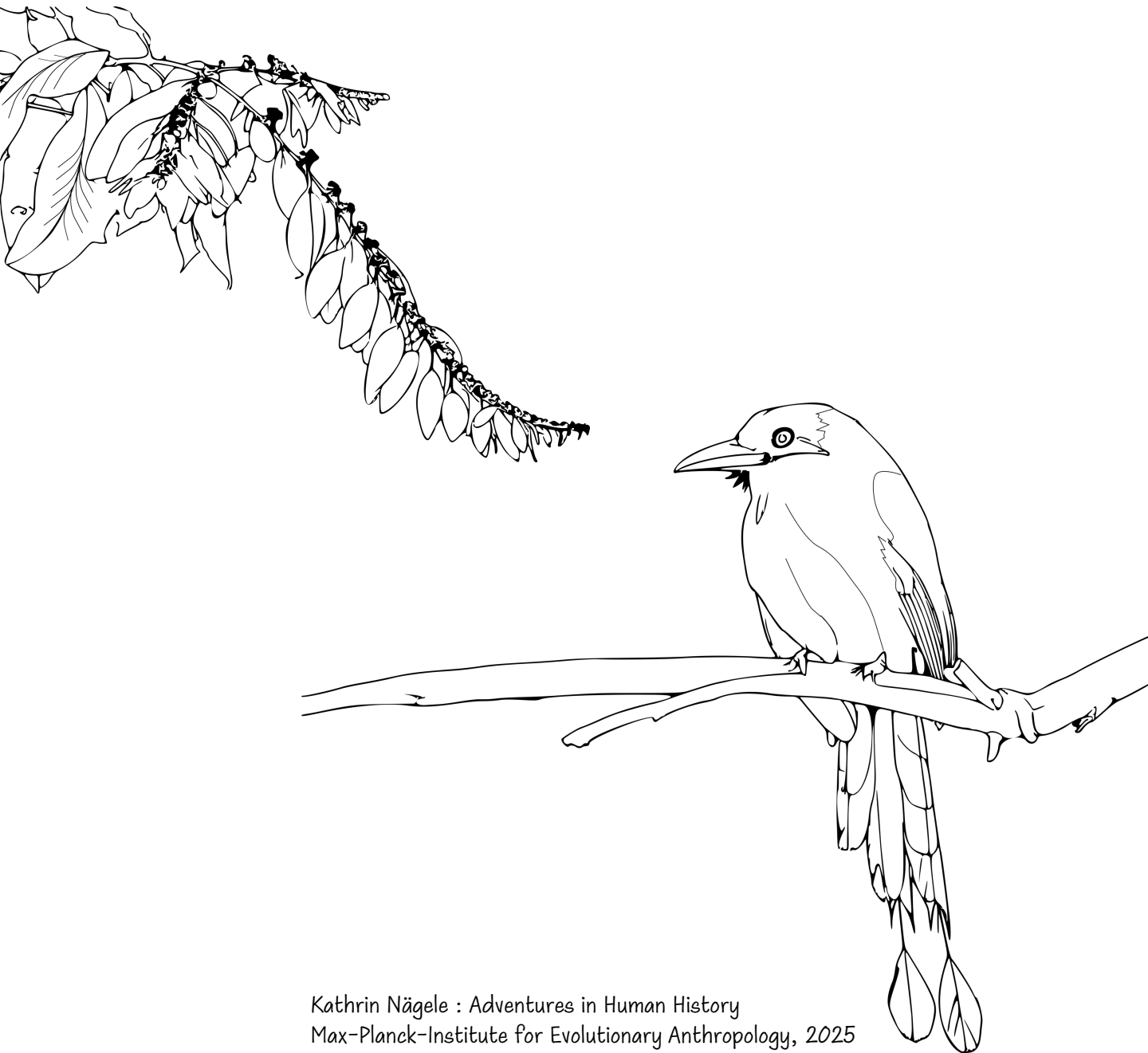




ADVENTURES IN HUMAN HISTORY





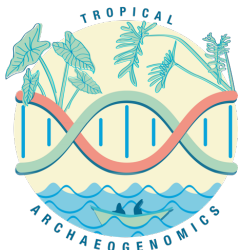


Kathrin Nägele : Adventures in Human History
Max-Planck-Institute for Evolutionary Anthropology, 2025

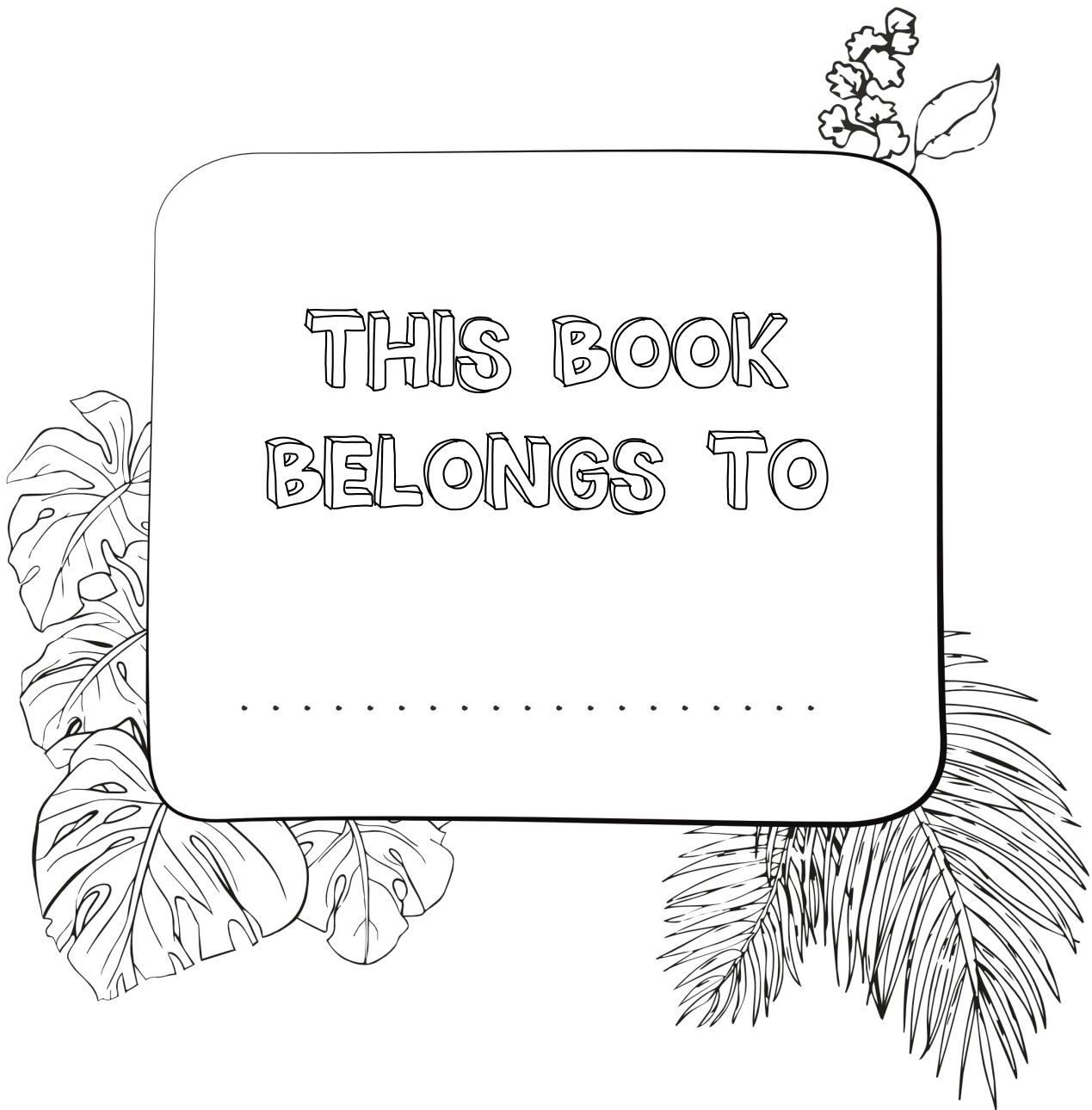
Author: Kathrin Nägele
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Publisher: Max-Planck-Institute for Evolutionary Anthropology, Leipzig

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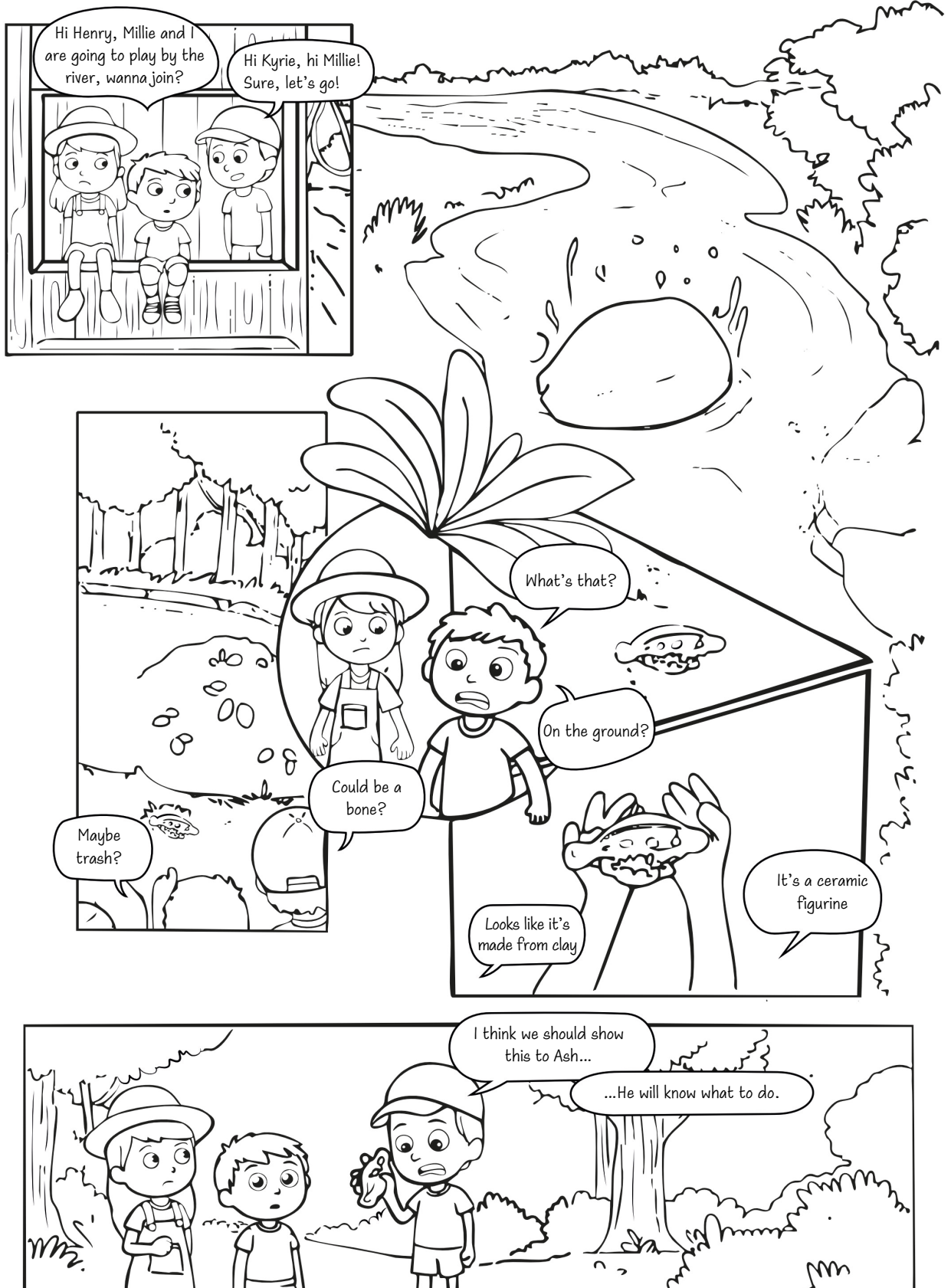
MAX PLANCK INSTITUTE
FOR EVOLUTIONARY ANTHROPOLOGY



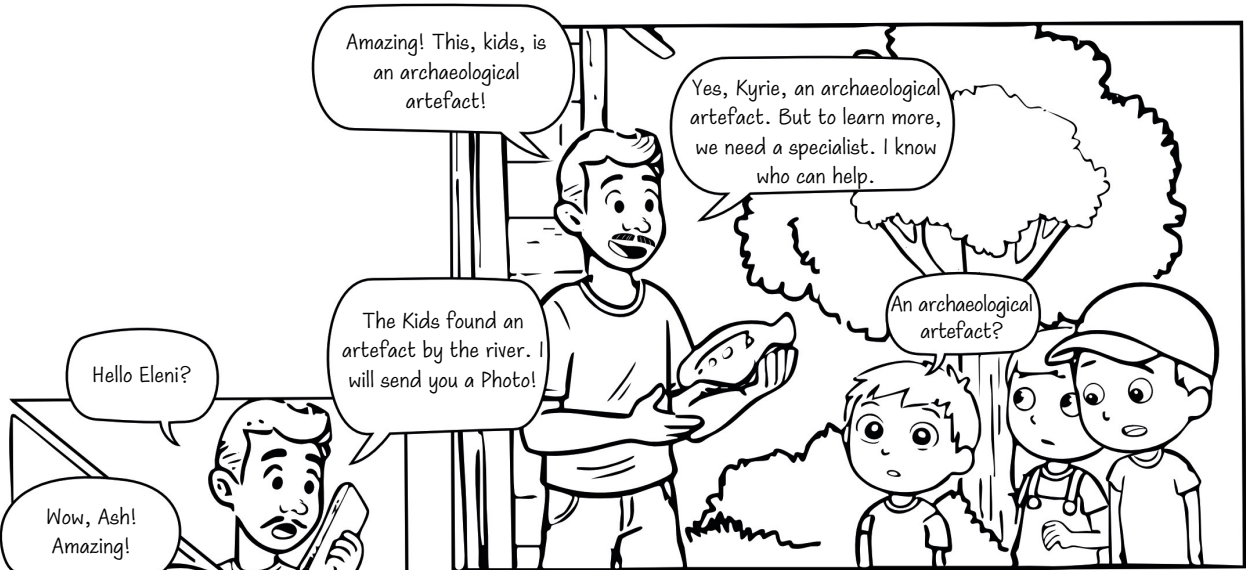
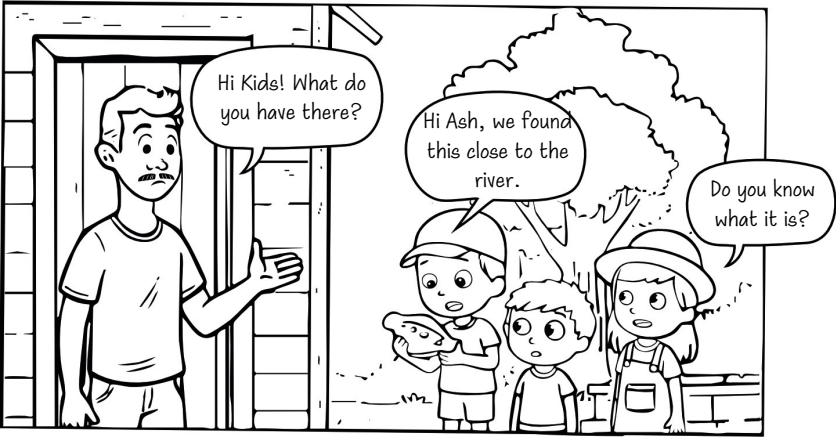
THIS BOOK
BELONGS TO

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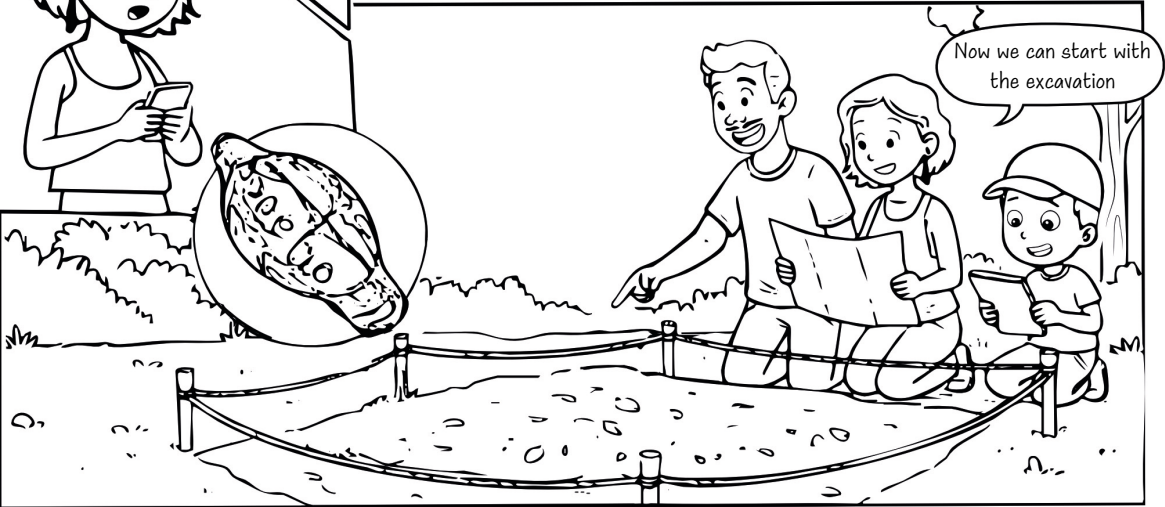
ADVENTURES IN



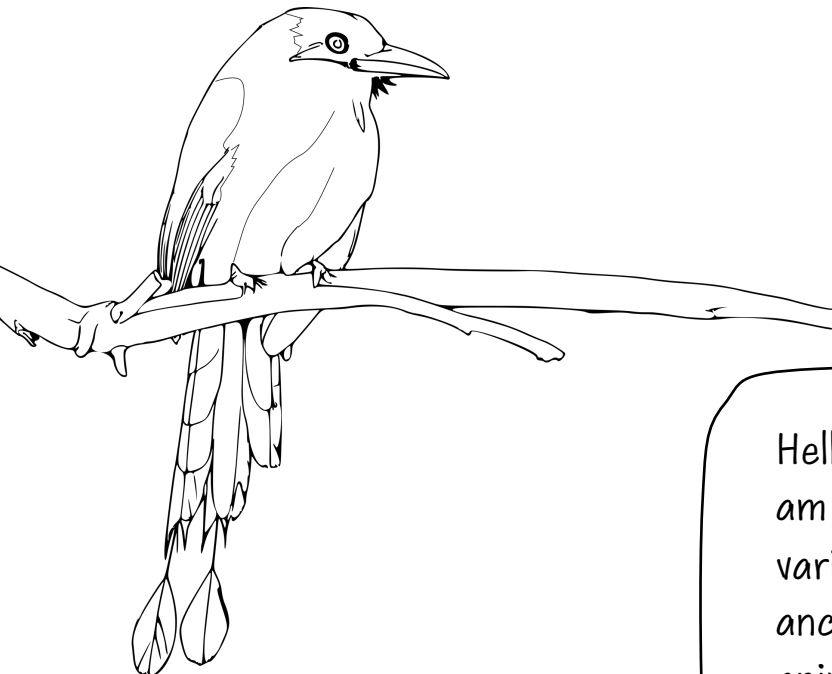
HUMAN HISTORY



AND THIS IS HOW OUR ADVENTURE BEGINS.

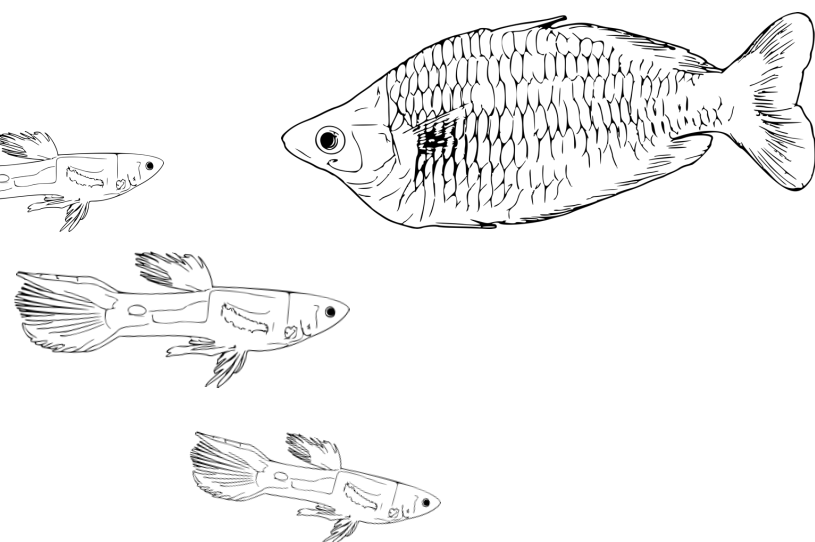
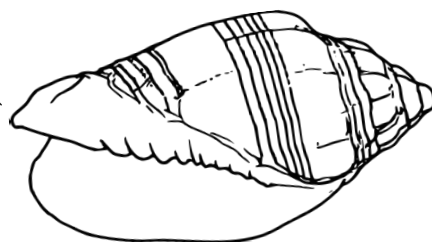


THE



Hello, my name is Zara and I am Trinidadian. I study various remains from the ancient Caribbean, including animal bones and shells.

I'm an **ARCHAEOLOGIST**



We study
HUMAN

RESEARCHERS



KATHRIN

Hi! I'm Kathrin. I'm from Germany, where I was born in the south of the country. There, we speak a dialect that is very difficult for other Germans to understand.

Our research field
is called
GENETICS



ELENI

Hi I'm Eleni and I am from Greece, where we have more than 1200 islands and very tasty food!

HISTORY

WHAT IS

Today, when we travel the world, we can see many different people, speaking different languages, cooking different dishes.

But the world has not always looked the same as it does today. In most places, people in the past lived differently from how they do today.



HUMAN HISTORY?



The study of human history tries to understand how the ways of life, cultures or languages changed, and how the world came to look as it does today. We study how humans settled every corner of the world.

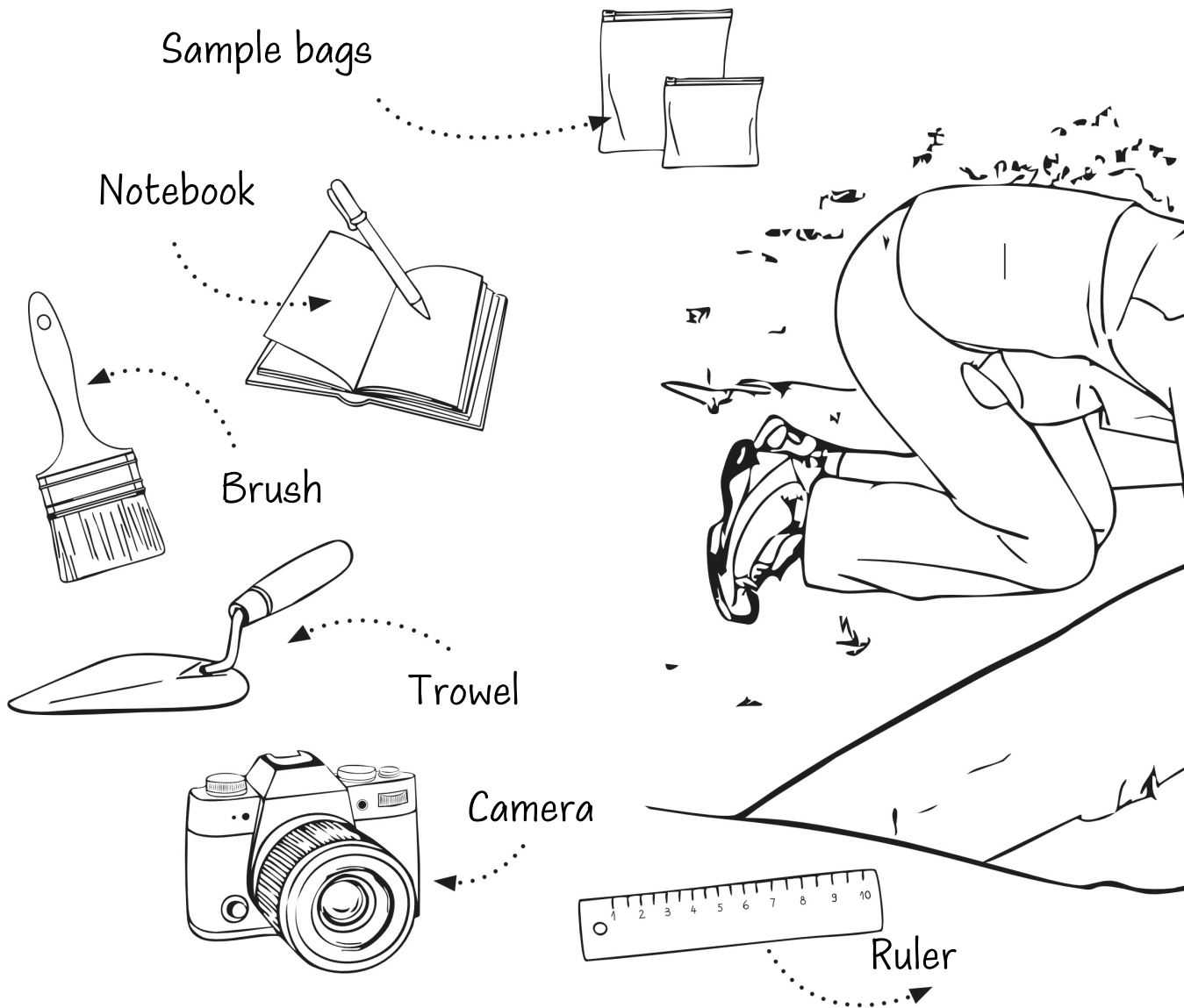
HOW DO WE LEARN

Different disciplines study how people lived and interacted in the past.

ARCHAEOLOGY

Archaeologists identify places where people lived in the past. They excavate the soil to find the things they left behind.

By digging a hole into the soil, they can open a window into the past.



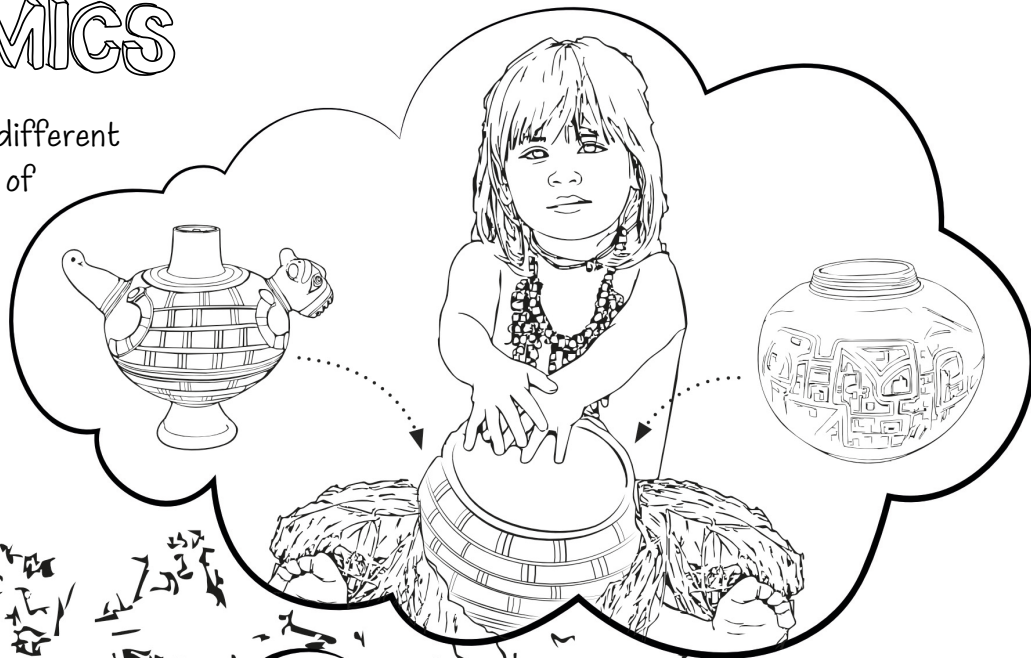
Archaeologists' **TOOLS**

ABOUT THE PAST?

Some types of materials persist and can be found in the soil.

CERAMICS

By comparing the different forms and designs of ceramics, we can reconstruct how people traveled, traded and exchanged ideas.



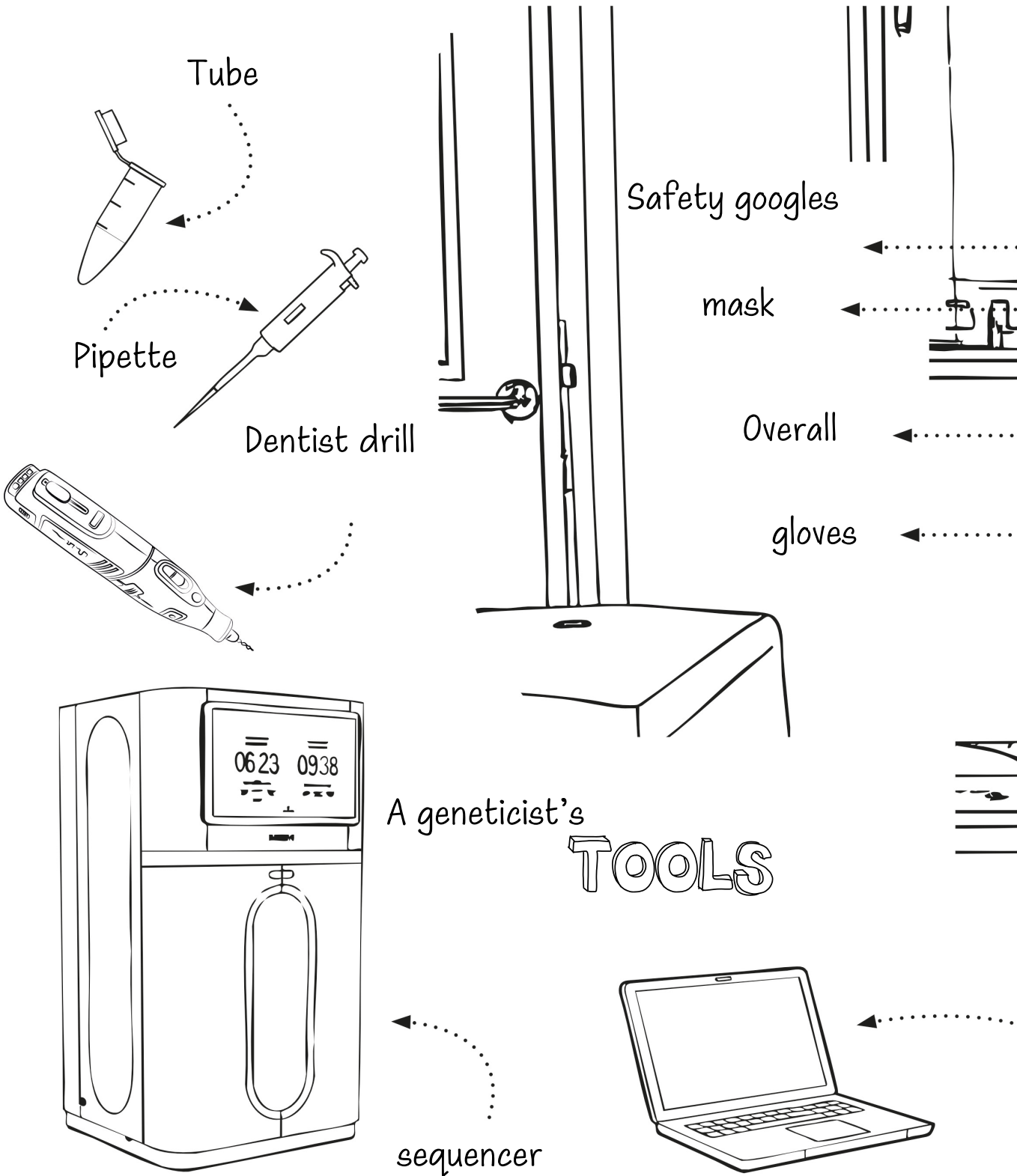
Something else that can often be found are

HUMAN REMAINS

Just like we do today, many peoples in the past buried their dead.

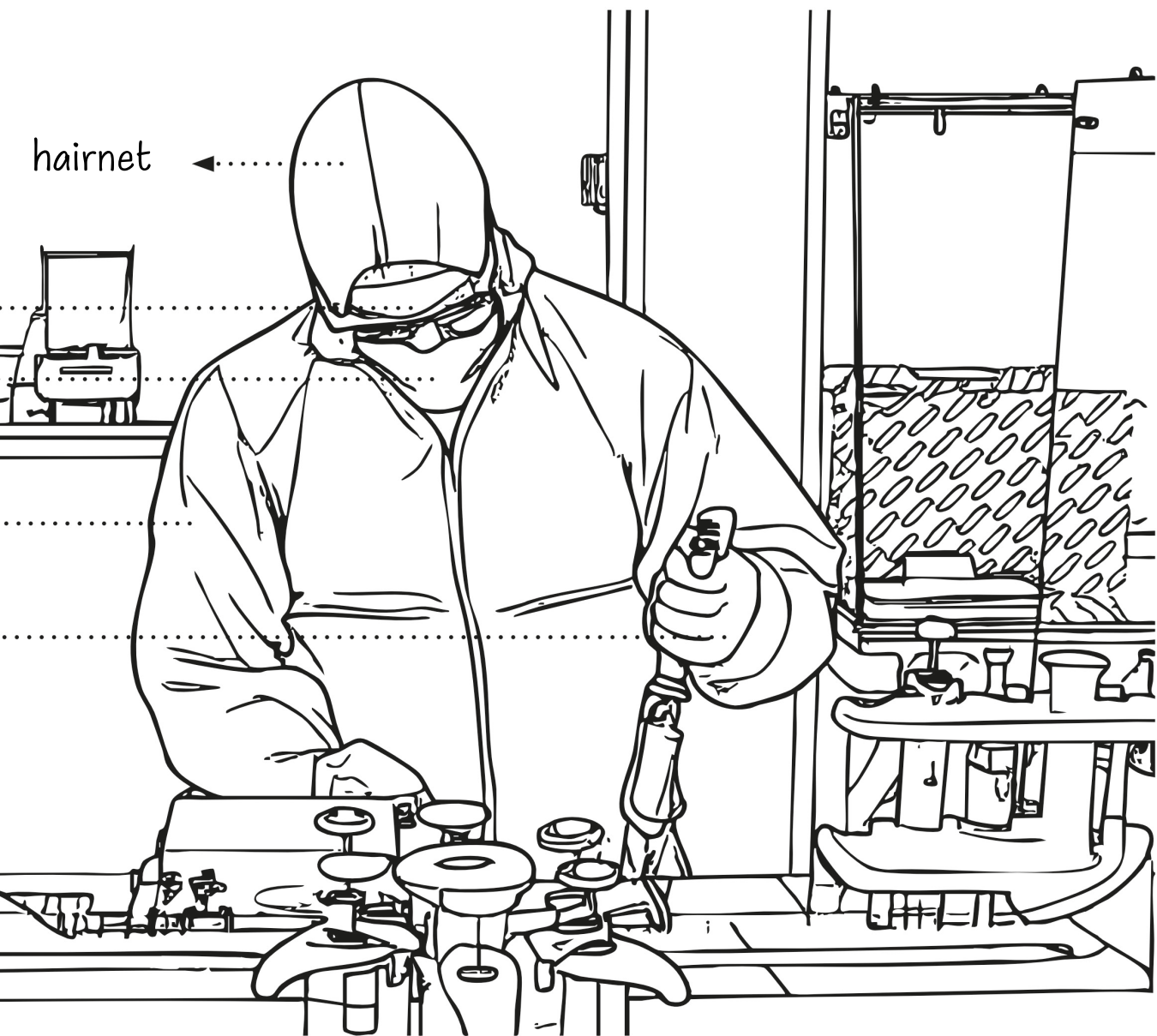
Just like archaeologists open windows to the past by digging holes in the soil, geneticists can drill holes into bones to learn more about the person buried and their ancestors. This research field is called

ARCHAEOGENETICS



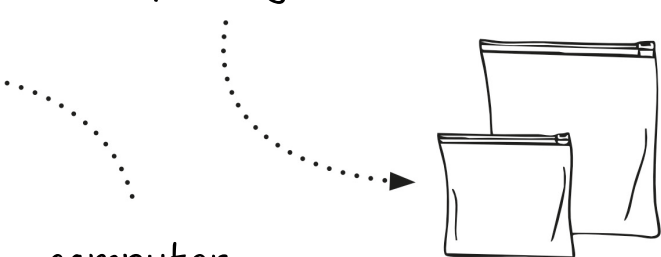
Archaeogeneticists work in a Laboratory. These are very clean rooms, so the ancient bone samples are protected from the modern environment.

Clean room ATTIRE



hairnet

Sample bags



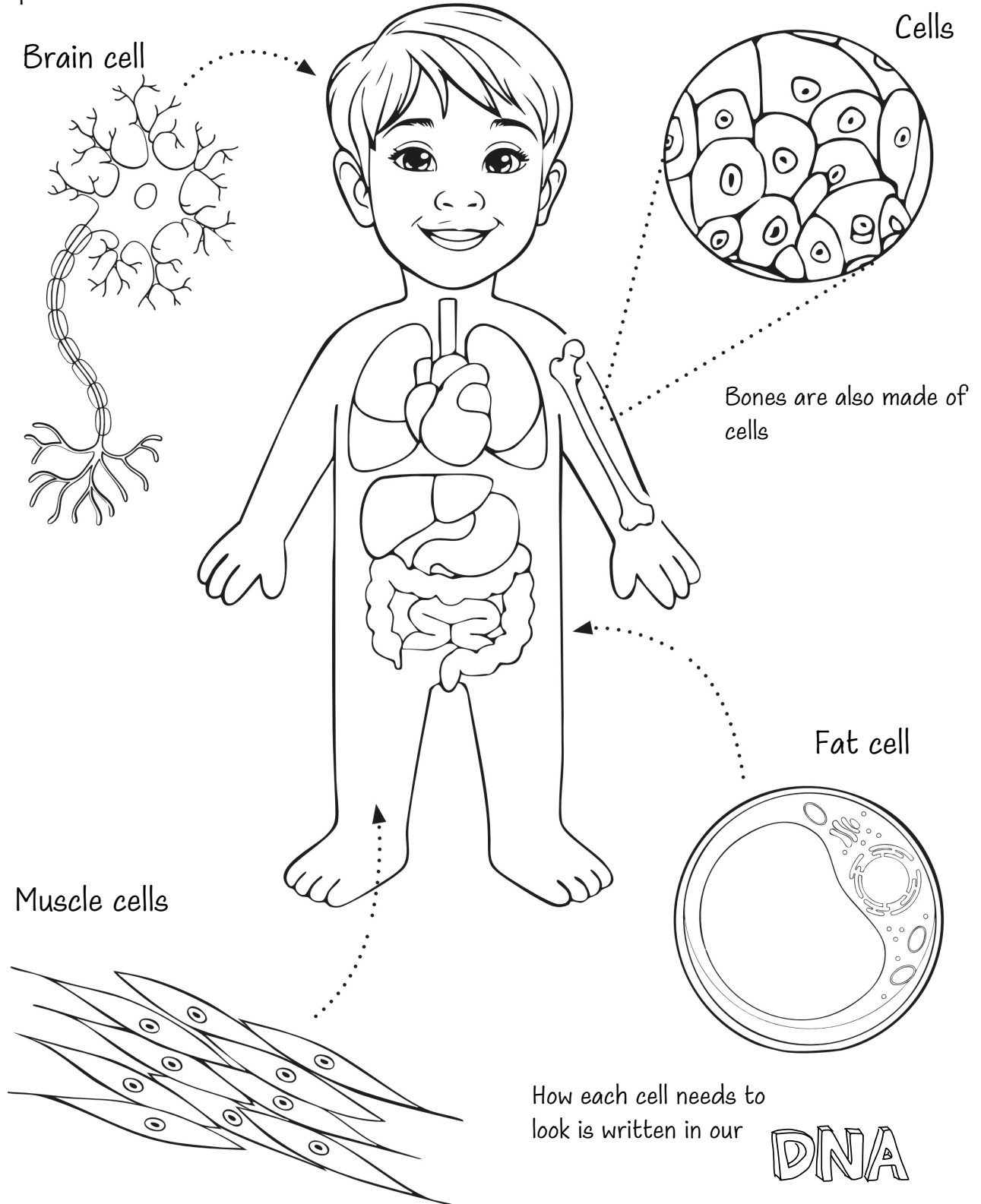
computer

With a dentist drill, we drill a tiny hole into the bone. This is the genetic window into the past, allowing us to learn more about the person buried, and their ancestors.

But HOW

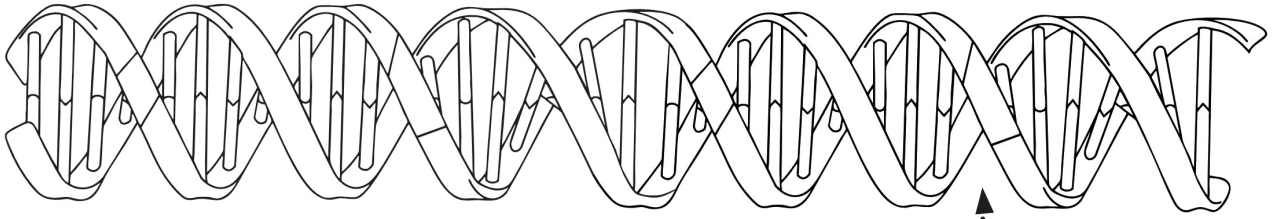
Our body is made of different organs, like our heart, skin, brain and bones. They are all made of smaller building blocks: Our Cells

For every organ, cells have to look a little different, because the organs have different tasks: Bones need to be hard, eyes need to see, our skin needs to protect.



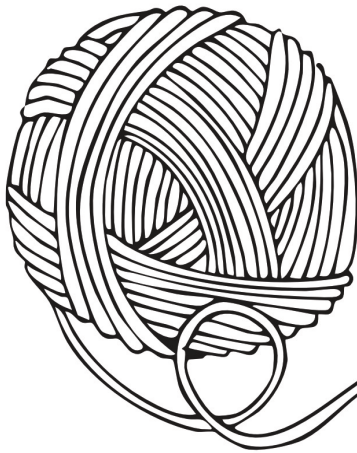
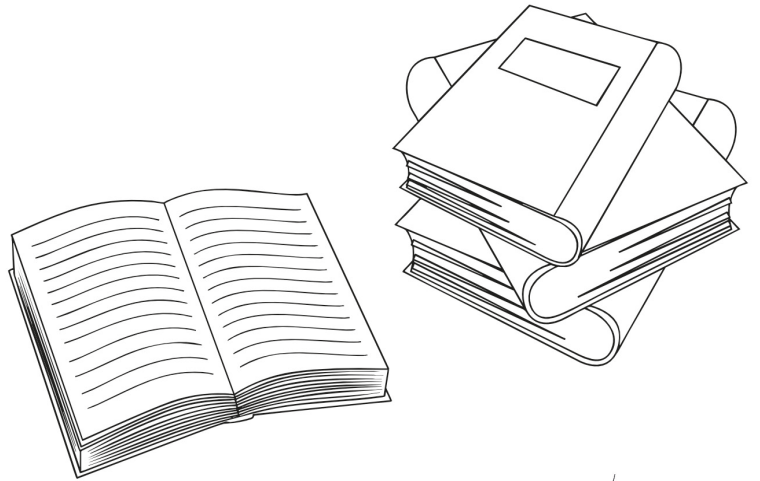
DNA

Is an abbreviation for a very complicated Word: Deoxy Ribonucleic Acid.



The form DNA has, is even longer than the word

The DNA is like a book in our cells — a manual perhaps. But the book doesn't have pages, but instead is more like a long thread, wound up into a ball.



And instead of 26 letters like the English alphabet

ATCGGATACA

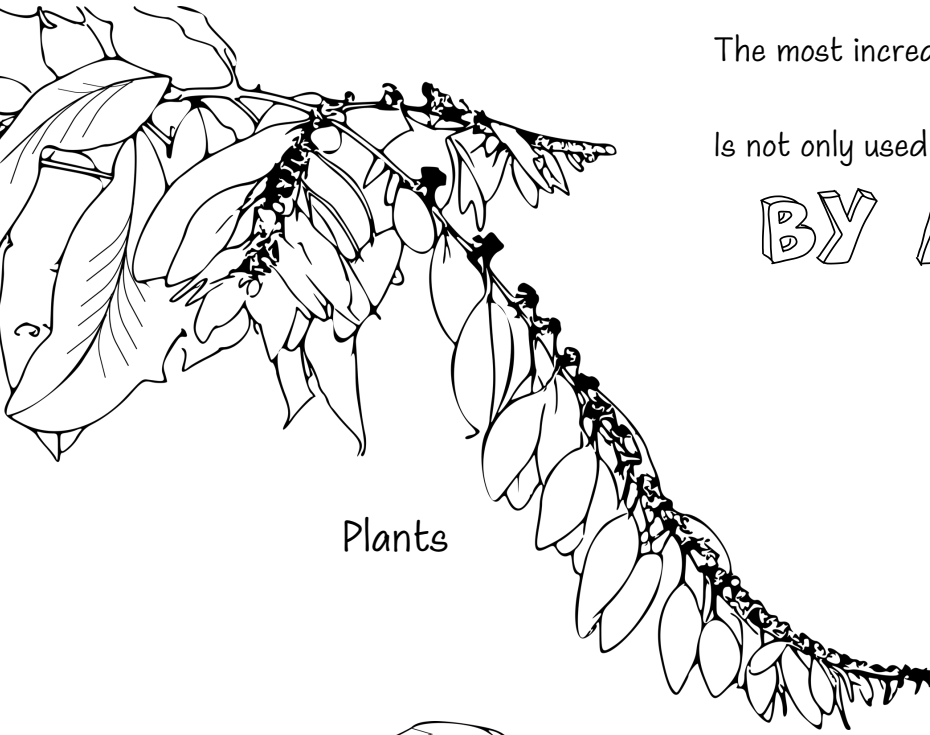
the language of DNA only has four letters:

A T C G

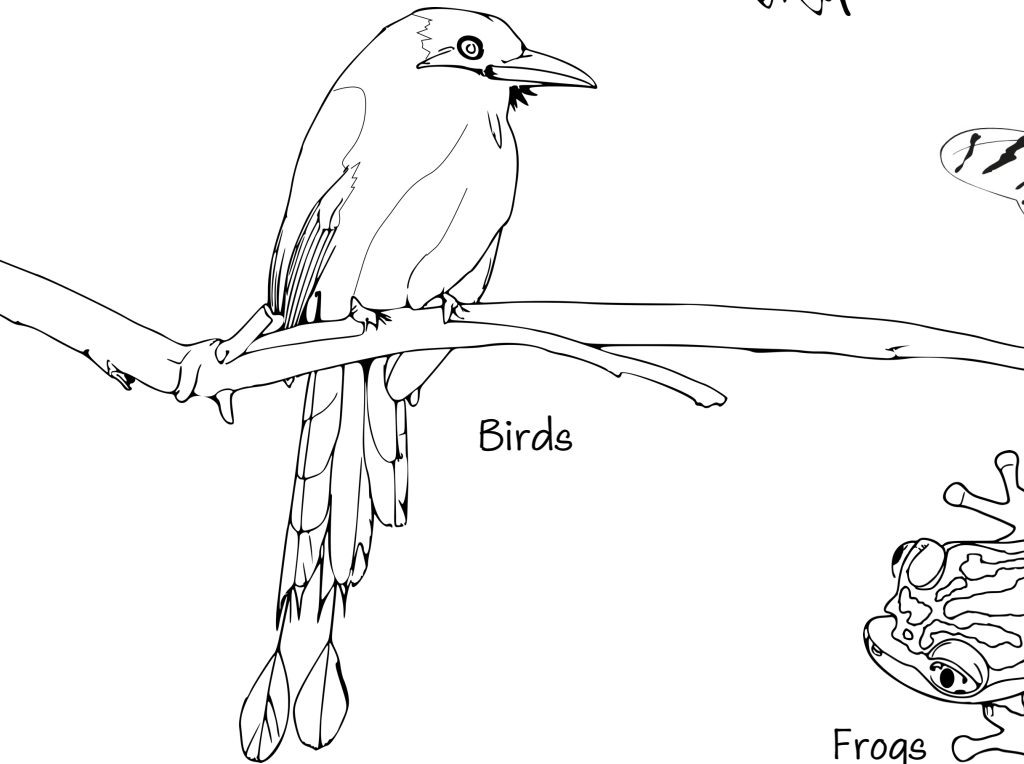
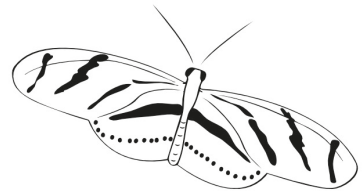
Geneticists have learned to read those letters, and have started to understand their meaning

The most incredible thing about genetics is that the
Is not only used by humans, but

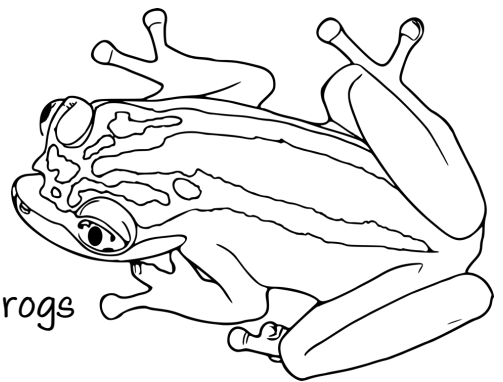
BY ALL LIFE ON



Plants



Birds



Frogs



Mushrooms



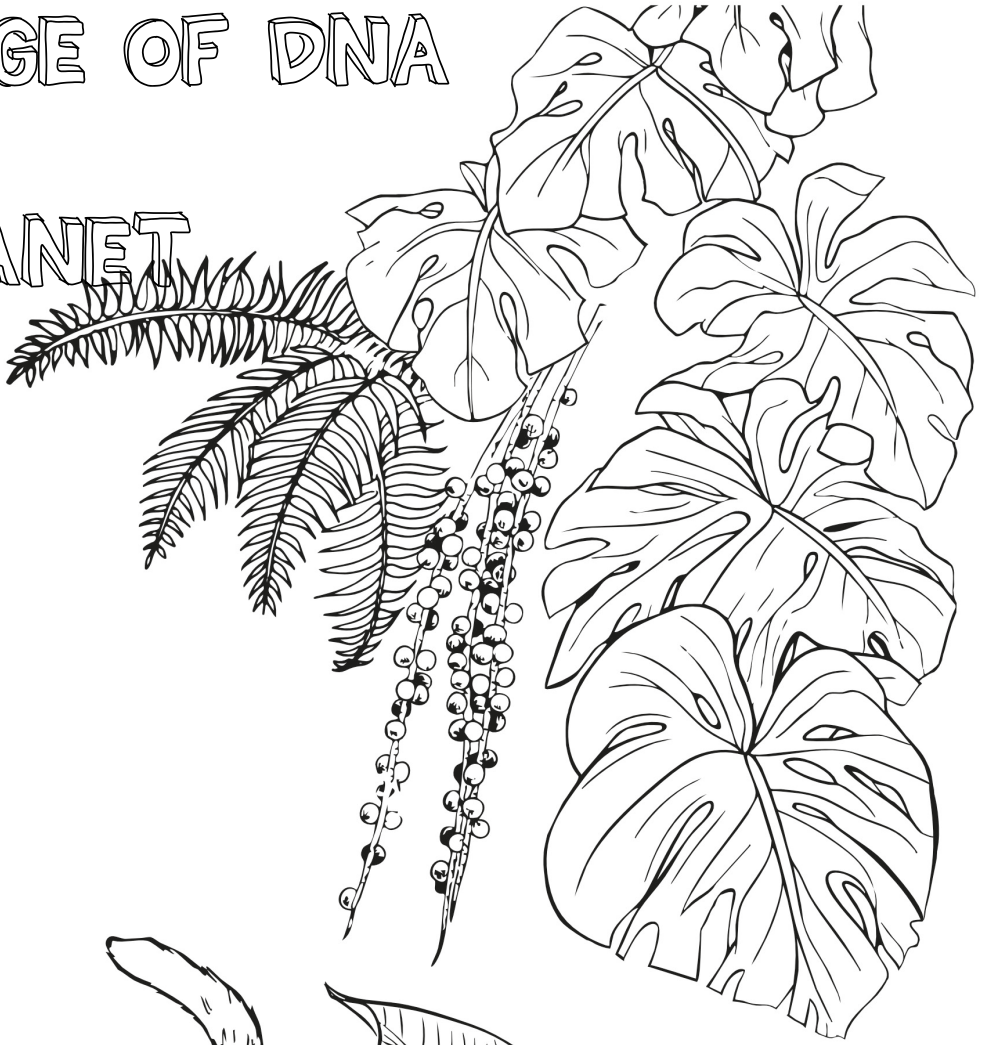
Fish

LANGUAGE OF DNA

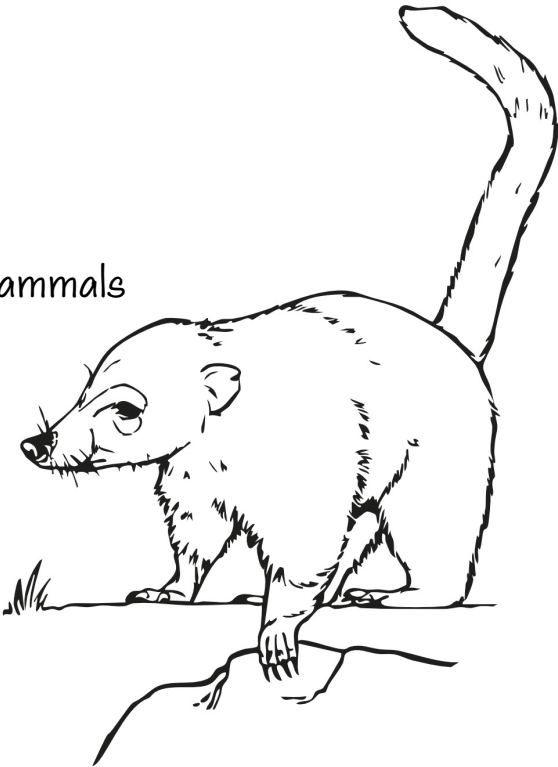
OUR PLANET



Insects



Mammals

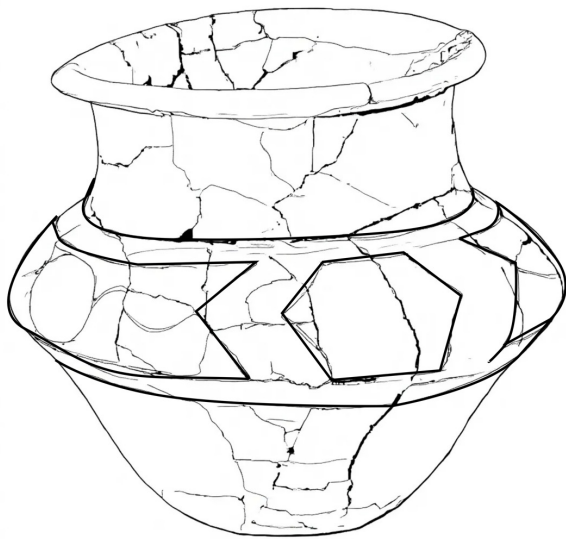


... and all other living beings share the same DNA language.

THE GENETIC HISTORY

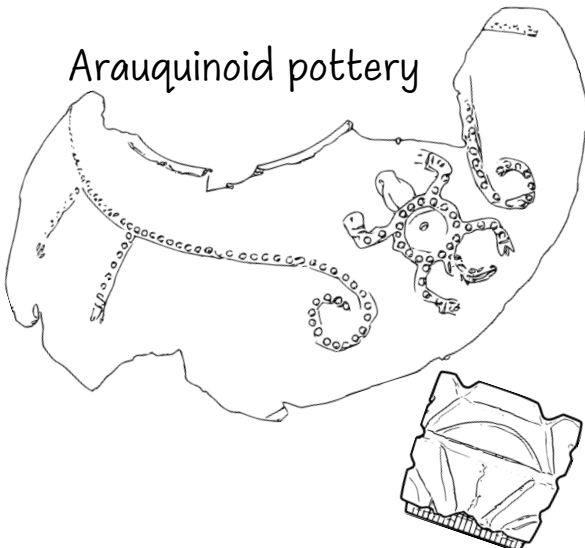
With DNA we can not only connect life on earth in the present

Archaeologists like Zara excavated ancient individuals from the Red House and the site Manzanilla. The people were buried there at two different times, and with different ceramics.



Saladoid pottery

The younger occupation featured Arauquinoid ceramics.



Arauquinoid pottery

Red House

The older occupation had Saladoid ceramics that can also be found in other Caribbean islands.



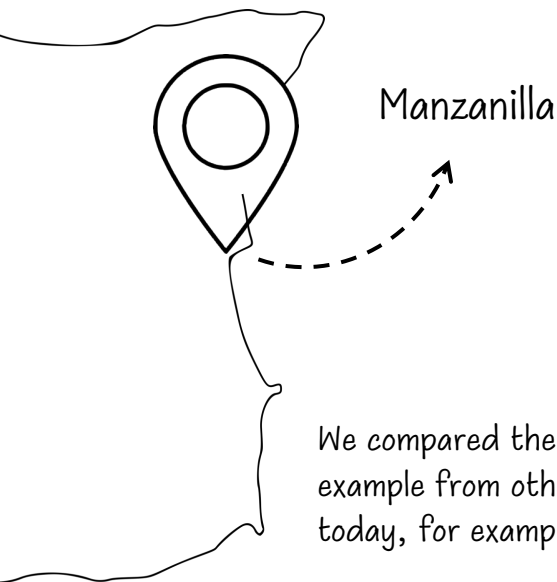
We found the older occupation with Age communities

Trinidad is the only island where Arauquinoid pottery is found, while on the continent it is found in northern Brazil, the Guyana shelf and Venezuela.

OF TRINIDAD

but also the present with the past.

And this is what we did in Trinidad.



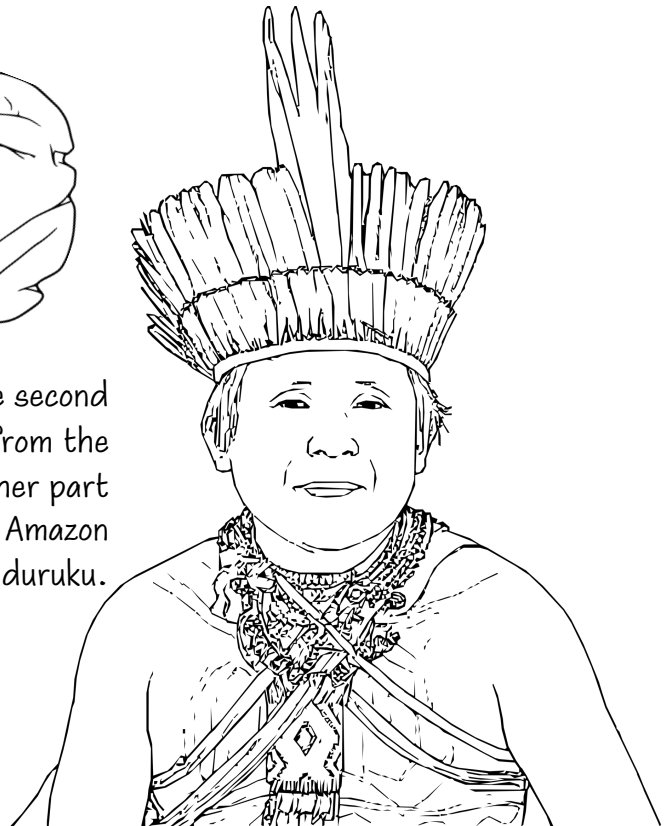
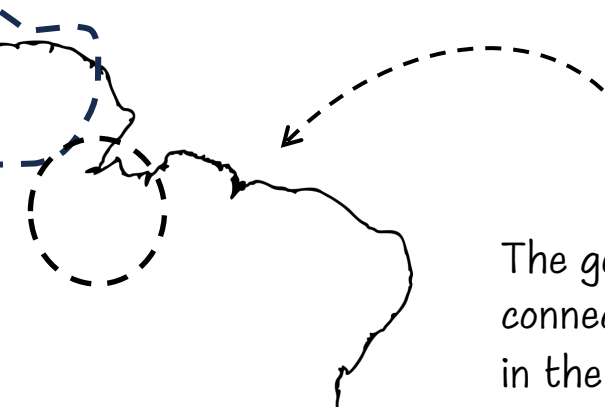
In a cleanroom, we extracted DNA from over 30 people, and our machines helped us to read parts of each individual's DNA.

We compared their DNA to those of other people, some ancient, for example from other Caribbean islands, and some people still living today, for example from the Amazon.

at the individuals from the earlier
ere genetically similar to other Ceramic
ities in the other Caribbean Islands.



The people that lived in Trinidad during the second occupation derived part of their ancestry from the inhabitants of the earlier occupation. The other part connects them to indigenous groups in the Lower Amazon today, like the Munduruku.



The genetic History of Trinidad shows the deep connection of indigenous people and their histories in the Americas.