The Secret in the Cellar (PDF)

Introduction:

This is a stand-alone printable version of the Webcomic of the same name on the website Written in Bone. It consists of illustrations and links to activities. However, there is no text other than the dialogue.

A **text only version** (no images) with dialogue and descriptions, as well as links to the activities, is available.

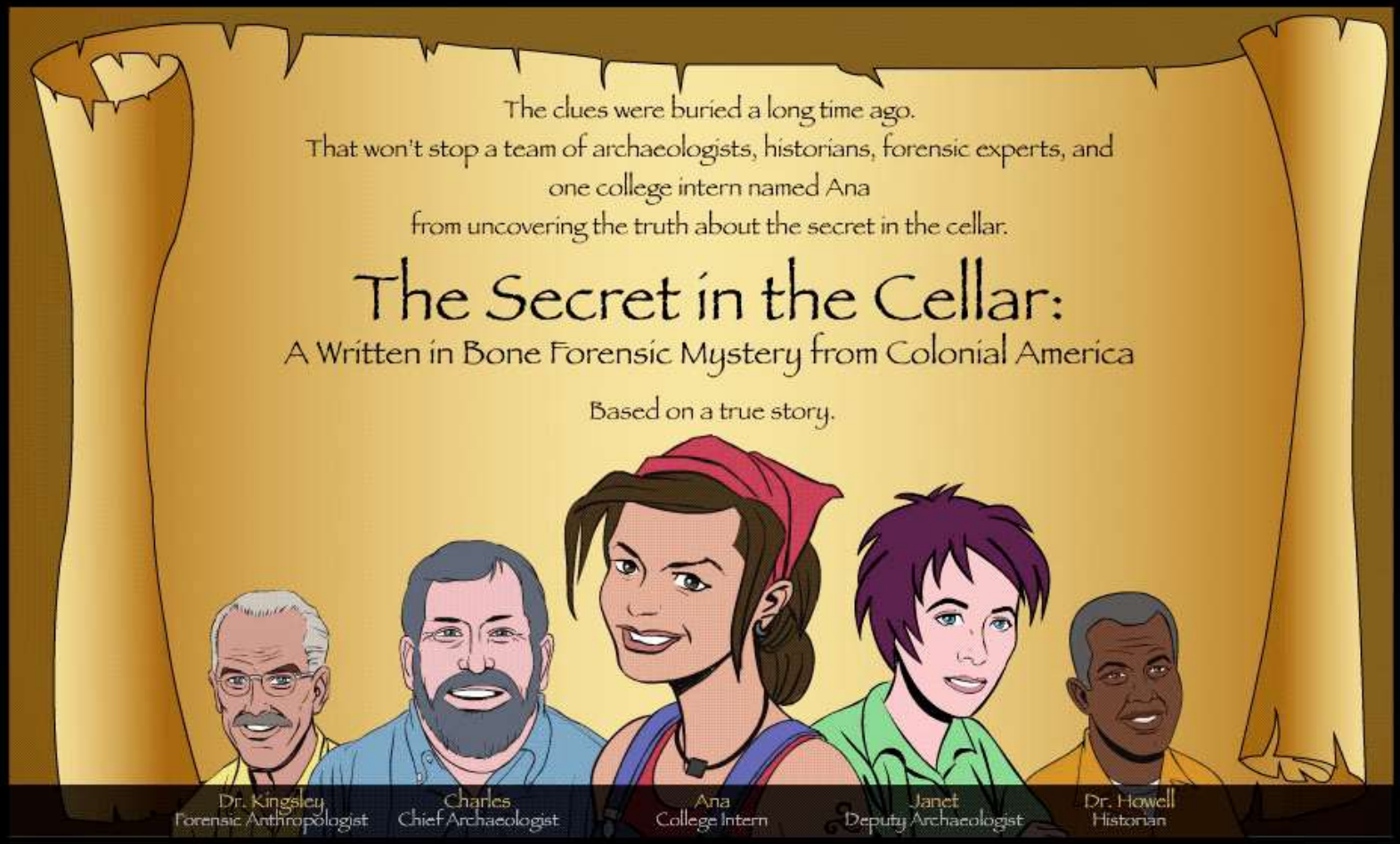
A word of caution about this version:

Before starting to read the PDF on the next pages (the Webcomic itself), set your monitor to open a new screen so that there are two screens showing side by side. In the new screen, open this file, **Webcomic Links** **OR** download and open the links **from a printable PDF file**.

Why? Links from PDFs to PDFs don't bring you back to the place you were but back to the very beginning. By the time you reach the third or fourth page of the comic, you will realize that when you close it, you are returning to the top of the first page each time you open a new activity - not much fun.

After you have set up your viewing environment you are ready to take in this bit of history from Colonial Maryland. The Webcomic starts on the next page.

Smithsonian
National Museum of Natural History

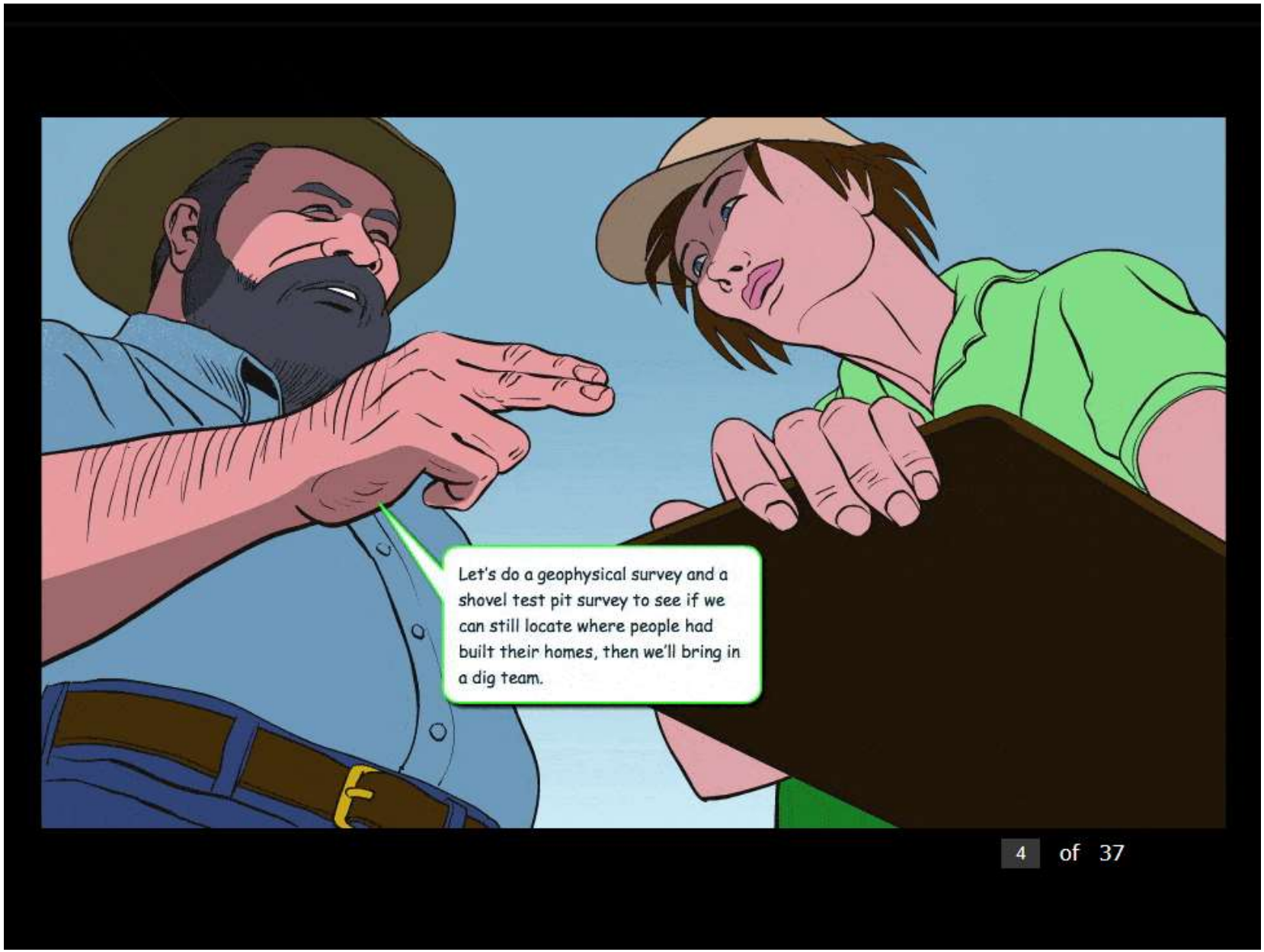


ARTICLE: BACKGROUND OF THE TIDEWATER CHESAPEAKE AREA (PDF)

ARTICLE: 17TH CENTURY COLONIZATION CHESAPEAKE AREA (PDF)

IMAGES: TRADE AND BELLY PIPES (PDF)

WEBSITE: LOST TOWNS PROJECT



DEFINITION: GEOPHYSICAL SURVEYS (PDF)

DEFINITION: SHOVELTEST PIT (PDF)

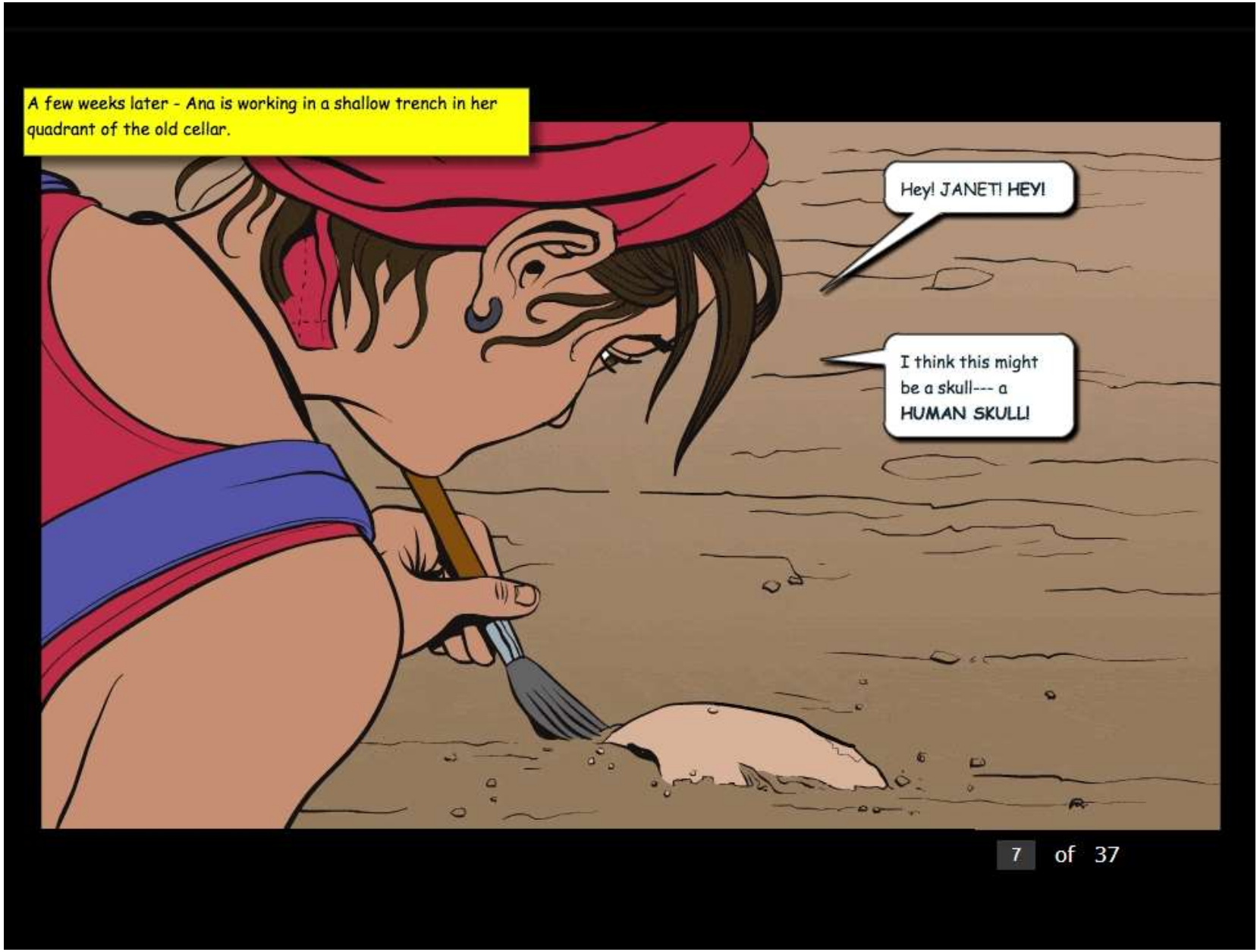
WEBSITE: ARCHEOLOGY

ROLE: JANET (PDF)

ROLE: CHARLES (PDF)

ROLE ANA (PDF)


Come on, I'll help get you started in your assigned quadrant. This is a great site and we've already found lots of artifacts.
I am real excited to help. Also, anything we find will help me develop a presentation I have to give to my ENTIRE Anthropology department.
But, unless your name is really Lara Croft, don't expect to find anything like gold, or death traps. You might find an old jug or two.


A few weeks later - Ana is working in a shallow trench in her quadrant of the old cellar.
Hey! JANET! HEY!
I think this might be a skull--- a HUMAN SKULL!
7 of 37


Yeah, right. No wait...Oh look, I found some Aztec gold too.
No really! Check it out. It's a HUMAN SKULL!

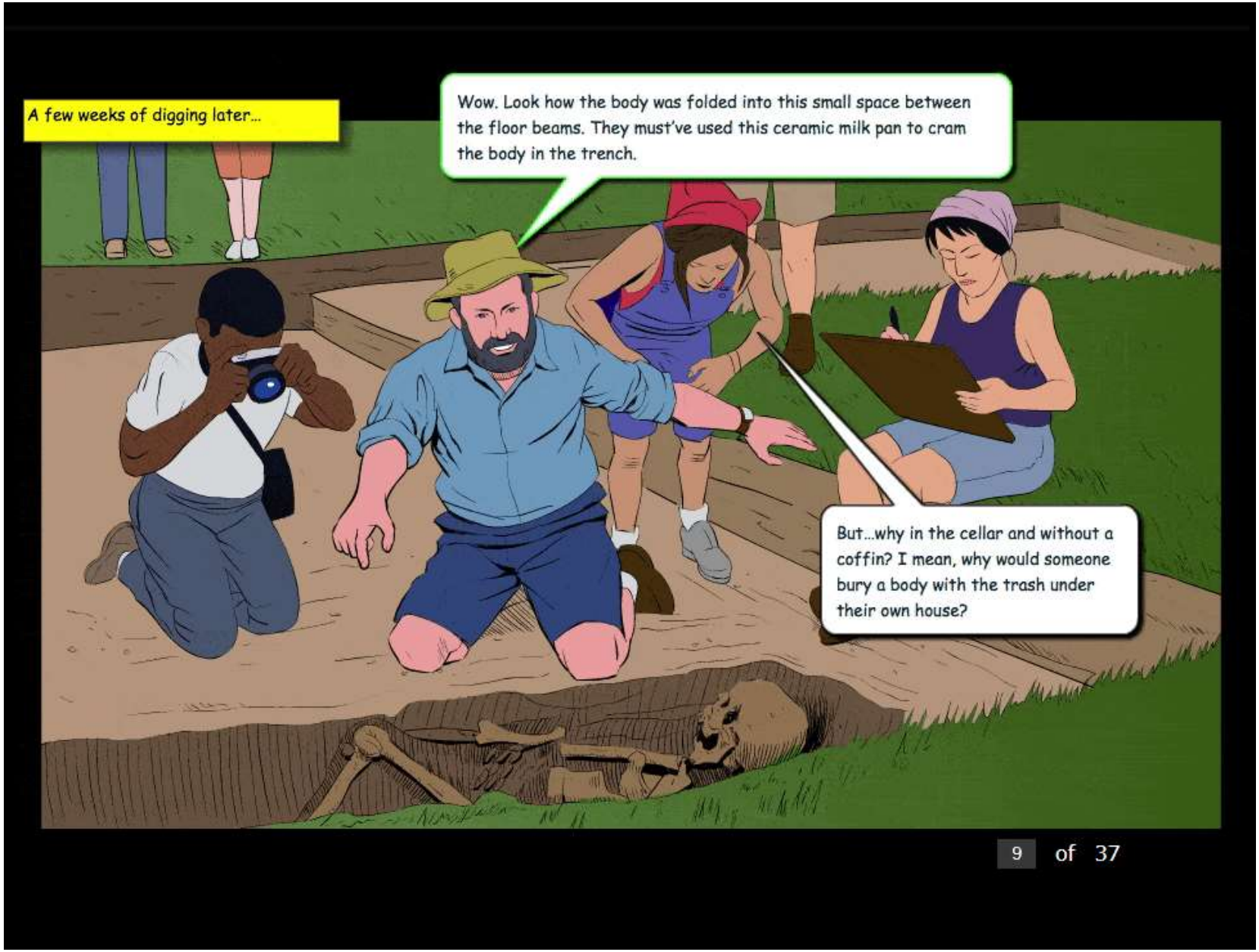
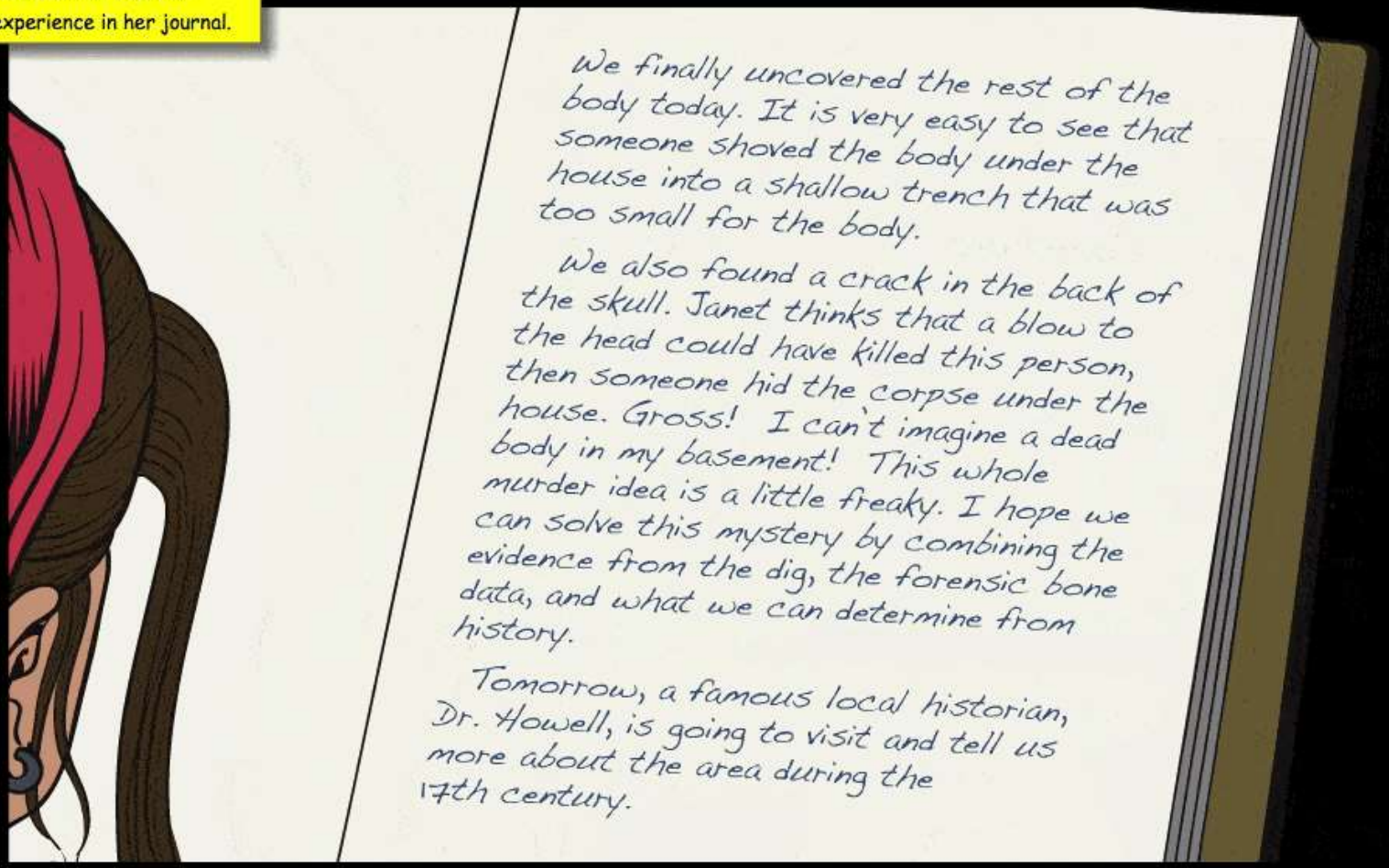


IMAGE: CERAMIC MILK PAN (PDF)


Hey, do you think they were hiding the body?
I don't know ... yet, but it's very unusual. Let's hope we can find some clues that will help us determine **when** the body was buried in the cellar and **why**.

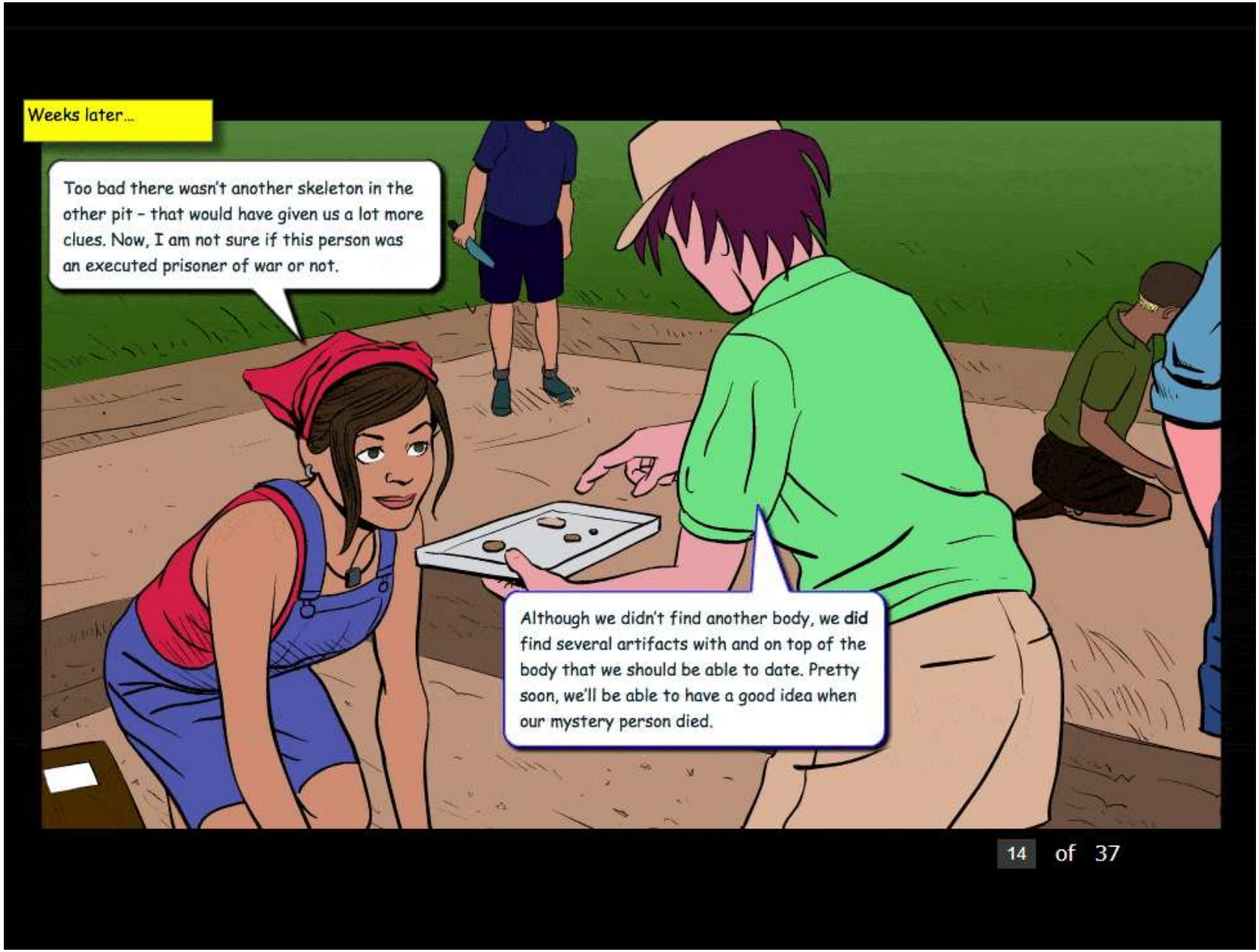
Ana writes about her experience in her journal.



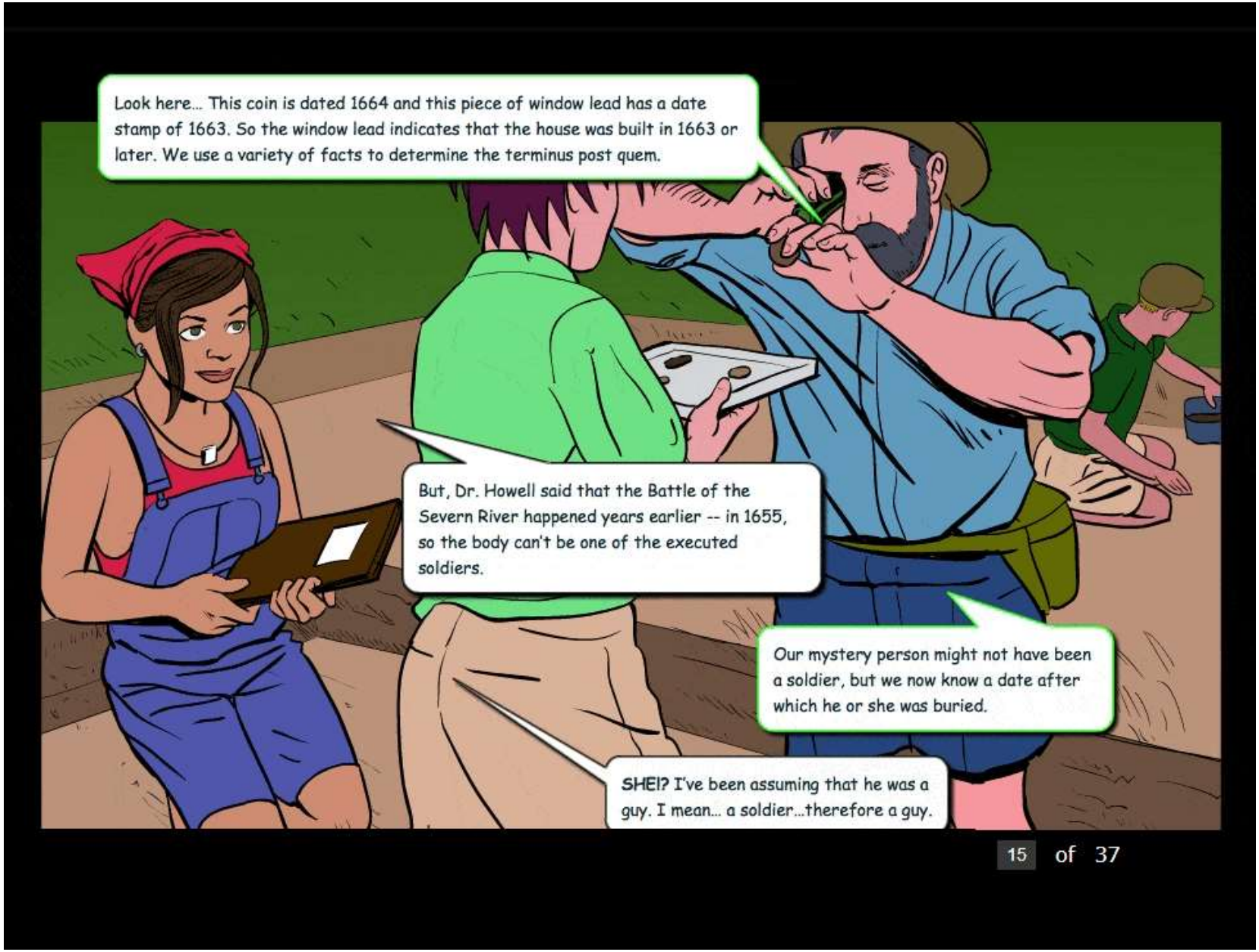
ARTICLE: BATTLE SEVERN (PDF)

ROLE: DR. HOWELL (PDF)


We know that after the battle, four prisoners of war were executed – but no graves were ever found. Once you've dated the site, we'll have a better idea if this is one of the soldiers from the battle.
Oh... it would be very exciting if you found more of the missing bodies in the other pit that you found in the adjacent quadrant in the cellar.
13 of 37

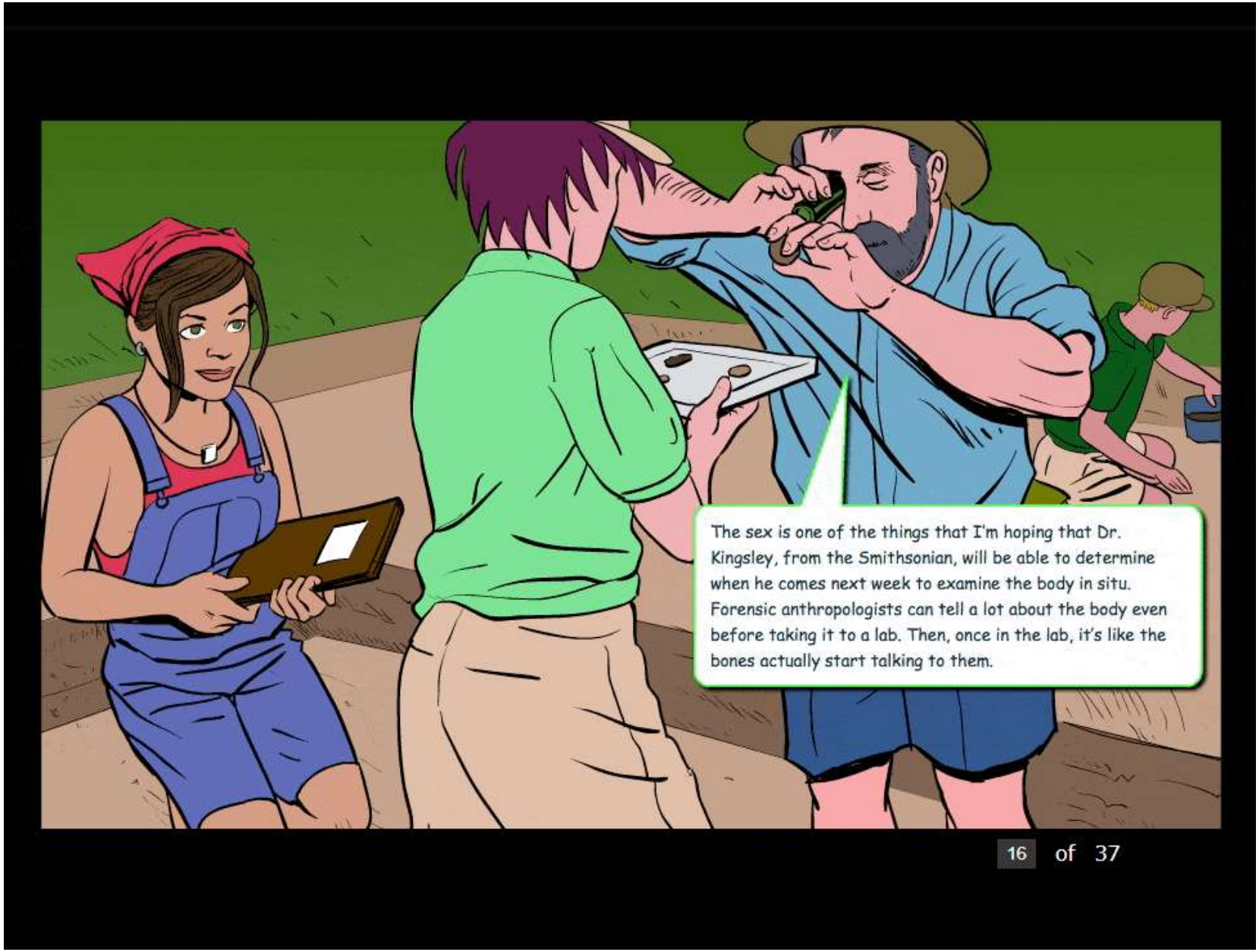


ACTIVITY: CAN YOU DATE THE SITE? (PDF)



IMAGES: COIN AND WINDOW LEAD (PDF)

DEFINITION: TERMINUS POST QUEM (PDF)

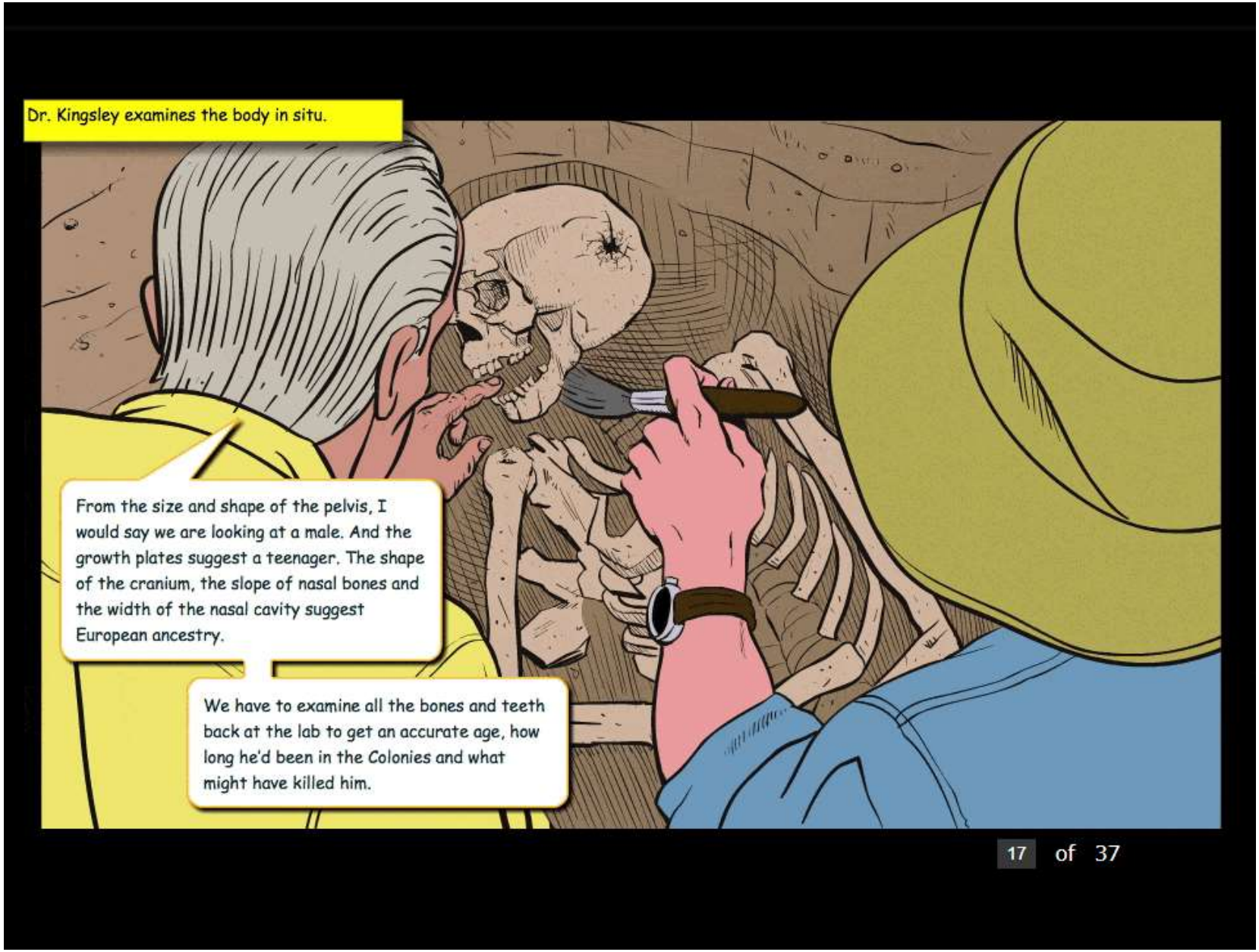


ACTIVITIY: IS THE SKELETON MALE OR FEMALE? (PDF)

ACTIVITY: CAN YOU IDENTIFY ANCESTRY? (PDF)

DEFINITION: IN SITU (PDF)

ACTIVITY: CAN YOU IDENTIFY THE AGE? (PDF)



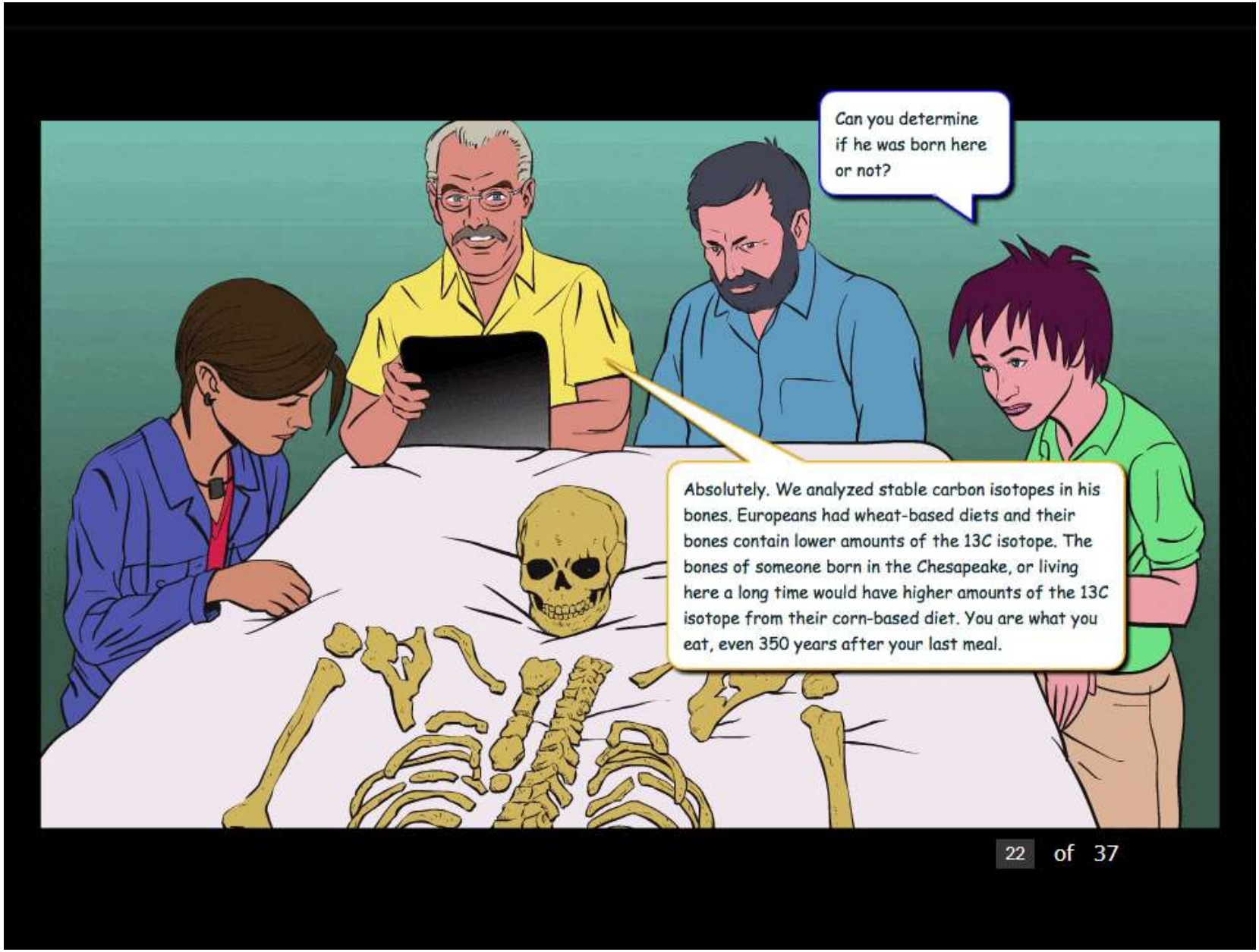
ROLE: DR. KINGSLEY (PDF)

ACTIVITY: IS THERE EVIDENCE OF TRAUMA? (PDF)

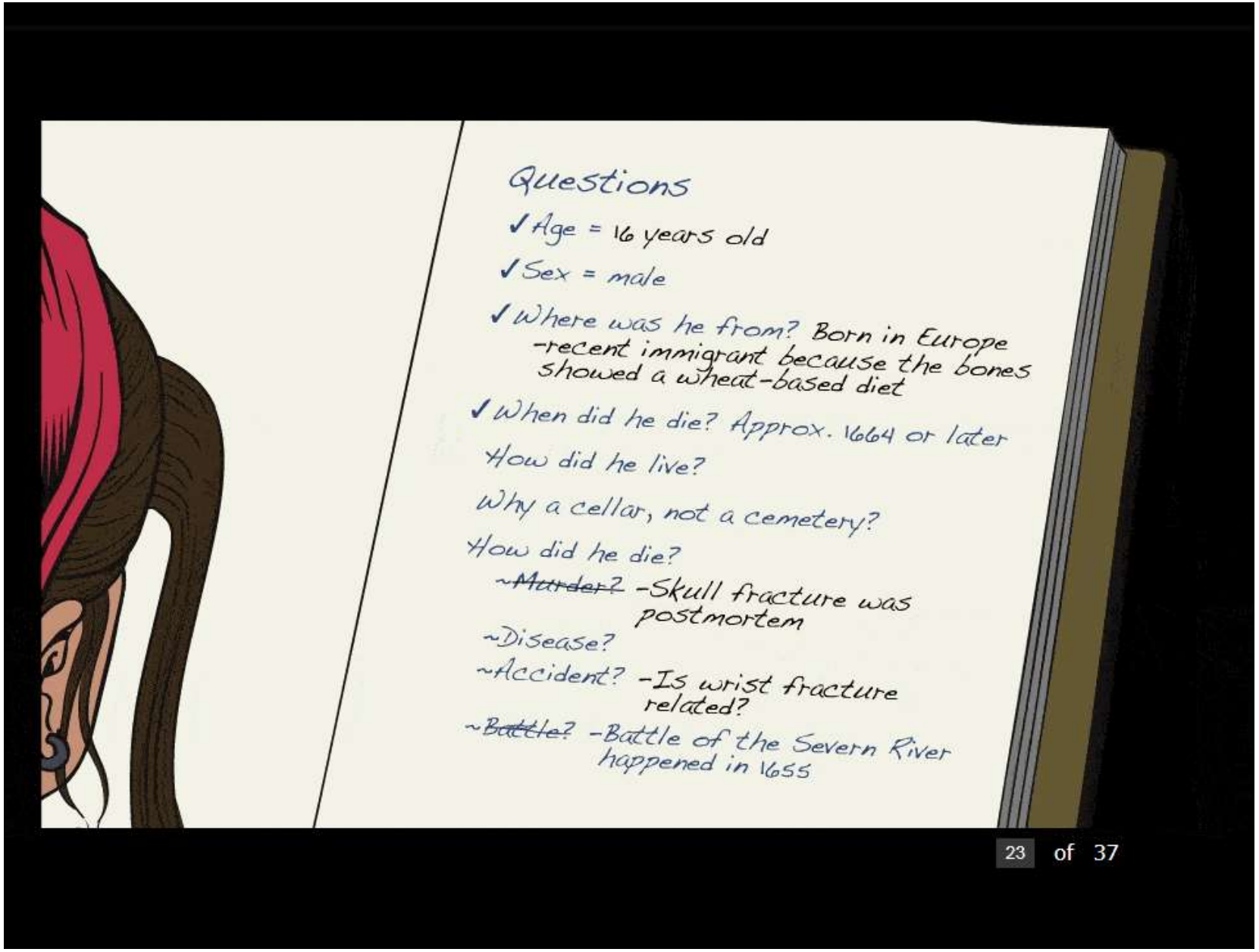

It was amazing that Dr. Kingsley could tell so much from the bones. I hope our trip to the Smithsonian lab next week can provide some more answers.
I've been worried about my presentation that's coming up. I just really want to know what happened to him before I finish my internship.
Questions
✓Age = teenager
✓Sex = male
Where was he from? Skull = European, but was he born in America?
✓When did he die? Approx. 1664 or later
How did he live?
Why a cellar, not a cemetery?
How did he die?
~Murder? -Skull fracture
~Disease?
~Accident?
~Battle? -Battle of the Severn River happened in 1655


The team reviews the lab analysis results with Dr. Kingsley.
So, how old was the boy, Dr. Kingsley?
Dental X-rays indicate an age of 15 to 17 years. This matches well with the unfused growth plates in his arms and legs – showing that he was still growing at the time of death.
20 of 37

DEFINITION: PERIMORTEM (PDF)

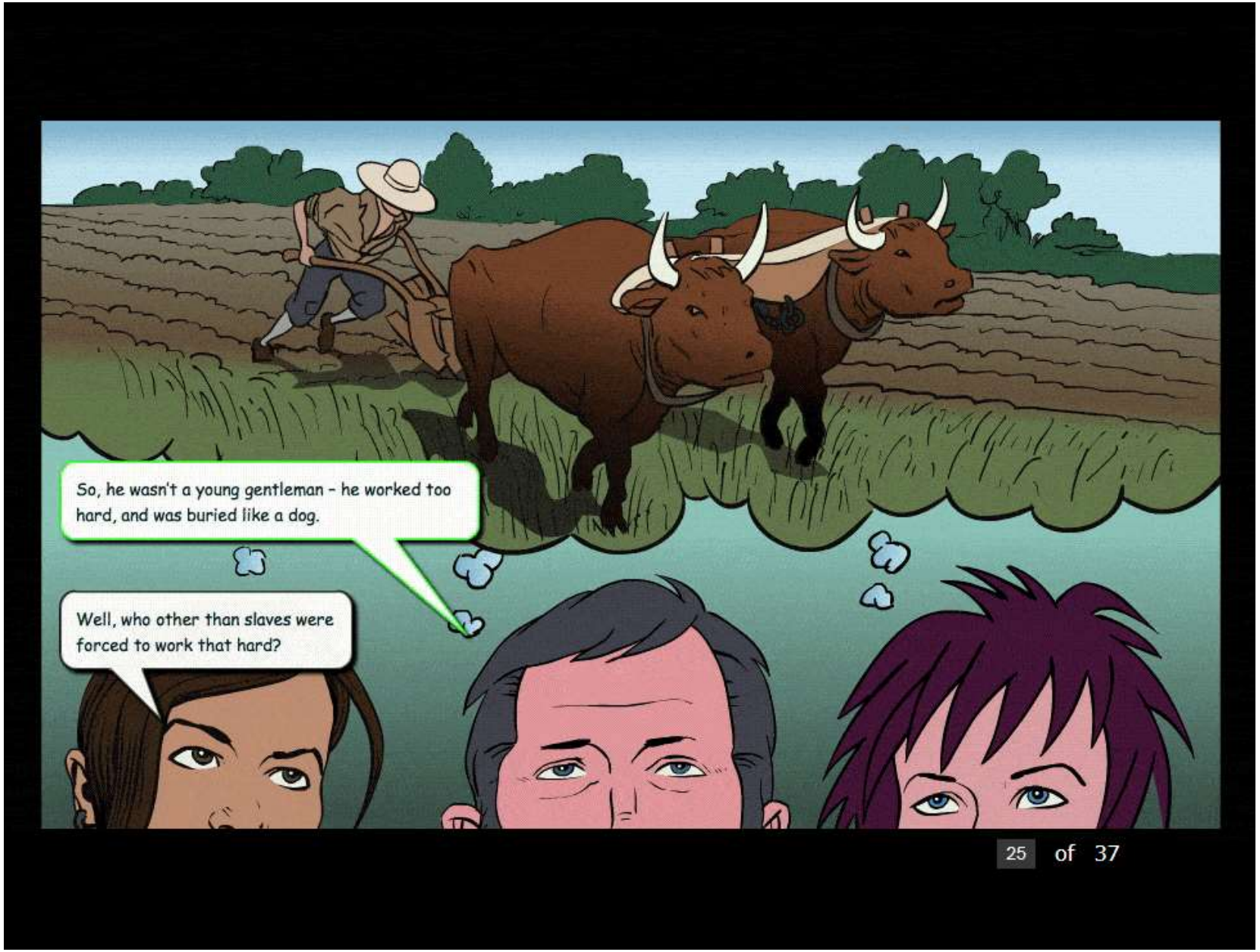


ACTIVITY: CAN YOU DETERMINE DIET? (PDF)

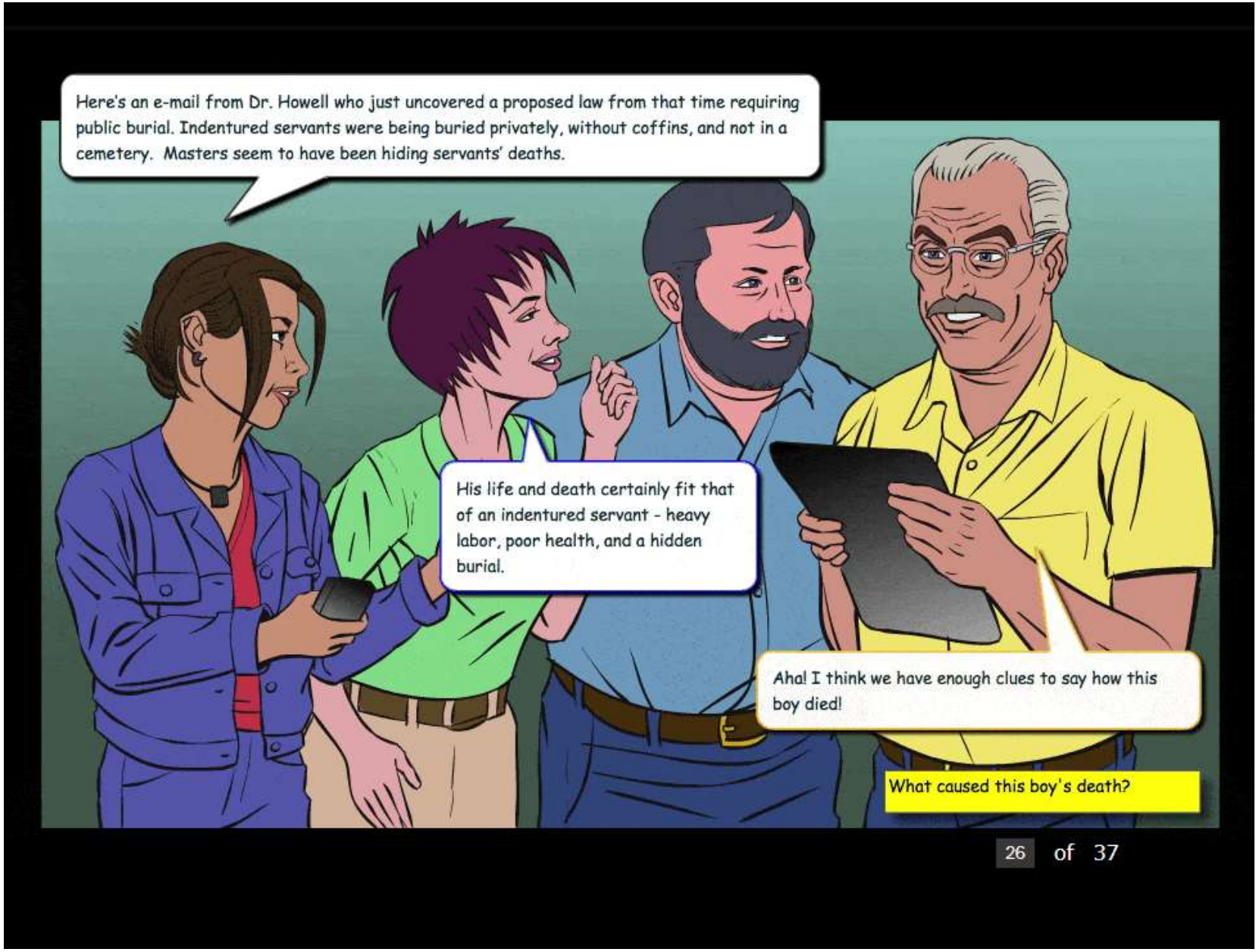

Questions
✓Age = 16 years old
✓Sex = male
✓Where was he from? Born in Europe
-recent immigrant because the bones showed a wheat-based diet
✓When did he die? Approx. 1664 or later
How did he live?
Why a cellar, not a cemetery?
How did he die?
~Murder? -Skull fracture was postmortem
~Disease?
~Accident? -Is wrist fracture related?
~Battle? -Battle of the Severn River happened in 1655

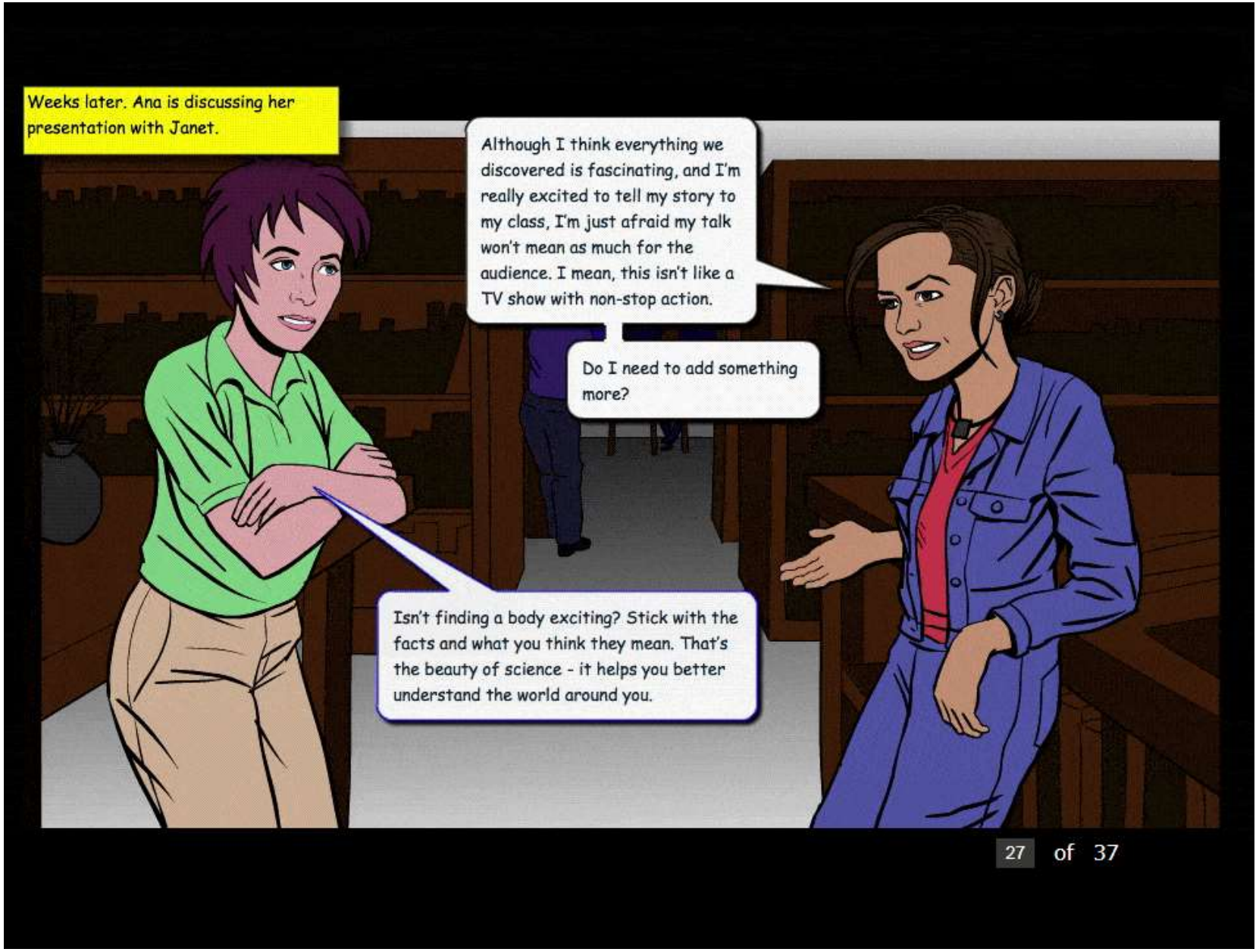
ACTIVITY: CAN YOU IDENTIFY ACTIVITY PATTERNS? (PDF)

ACTIVITY: CAN YOU IDENTIFY DISEASE IN BONE (PDF)

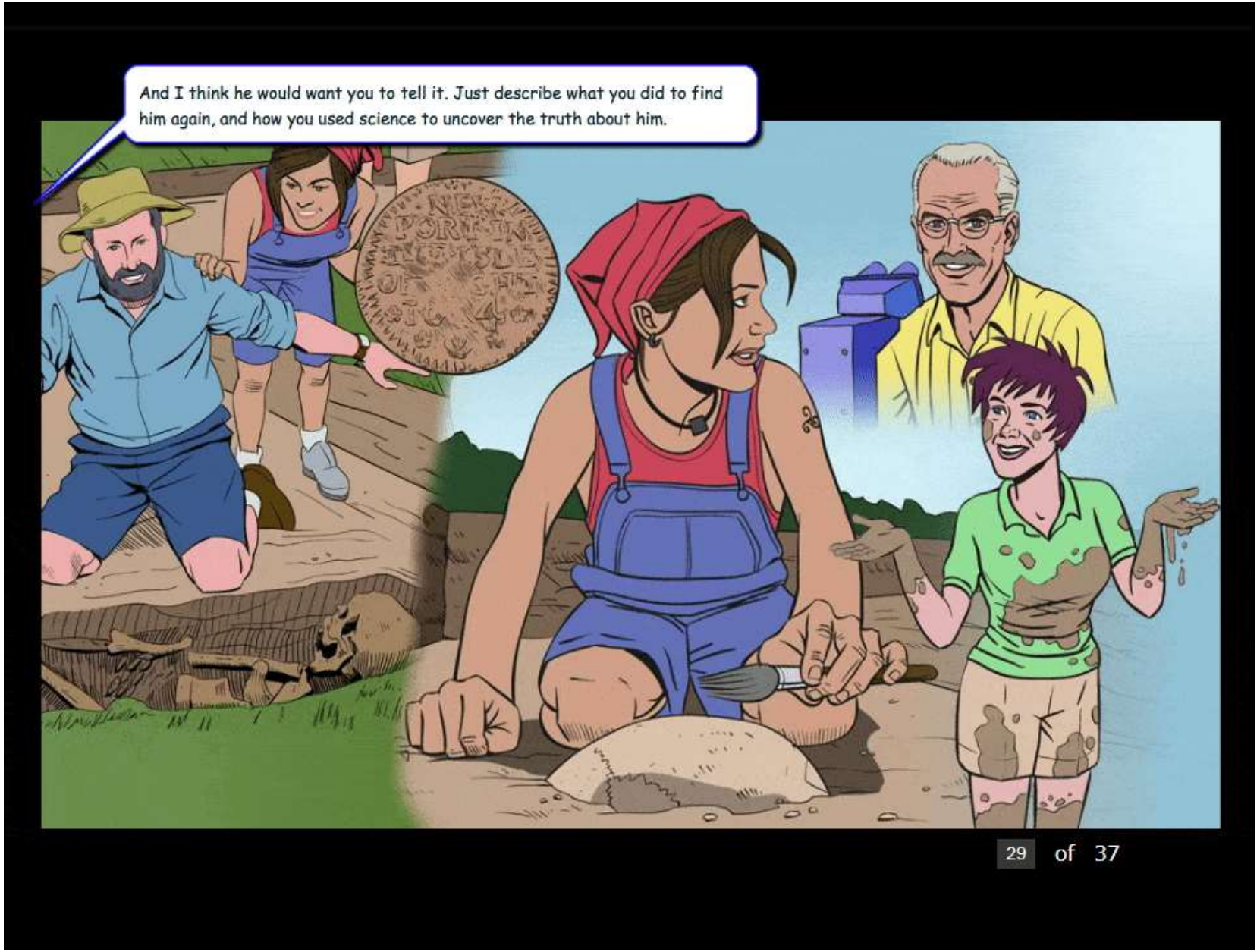


ARTICLE: CONDITIONS IN THE EARLY COLONIES (PDF)


Here's an e-mail from Dr. Howell who just uncovered a proposed law from that time requiring public burial. Indentured servants were being buried privately, without coffins, and not in a cemetery. Masters seem to have been hiding servants' deaths.
His life and death certainly fit that of an indentured servant - heavy labor, poor health, and a hidden burial.
Aha! I think we have enough clues to say how this boy died!
What caused this boy's death?


Weeks later. Ana is discussing her presentation with Janet.
Although I think everything we discovered is fascinating, and I'm really excited to tell my story to my class, I'm just afraid my talk won't mean as much for the audience. I mean, this isn't like a TV show with non-stop action.
Do I need to add something more?
Isn't finding a body exciting? Stick with the facts and what you think they mean. That's the beauty of science - it helps you better understand the world around you.

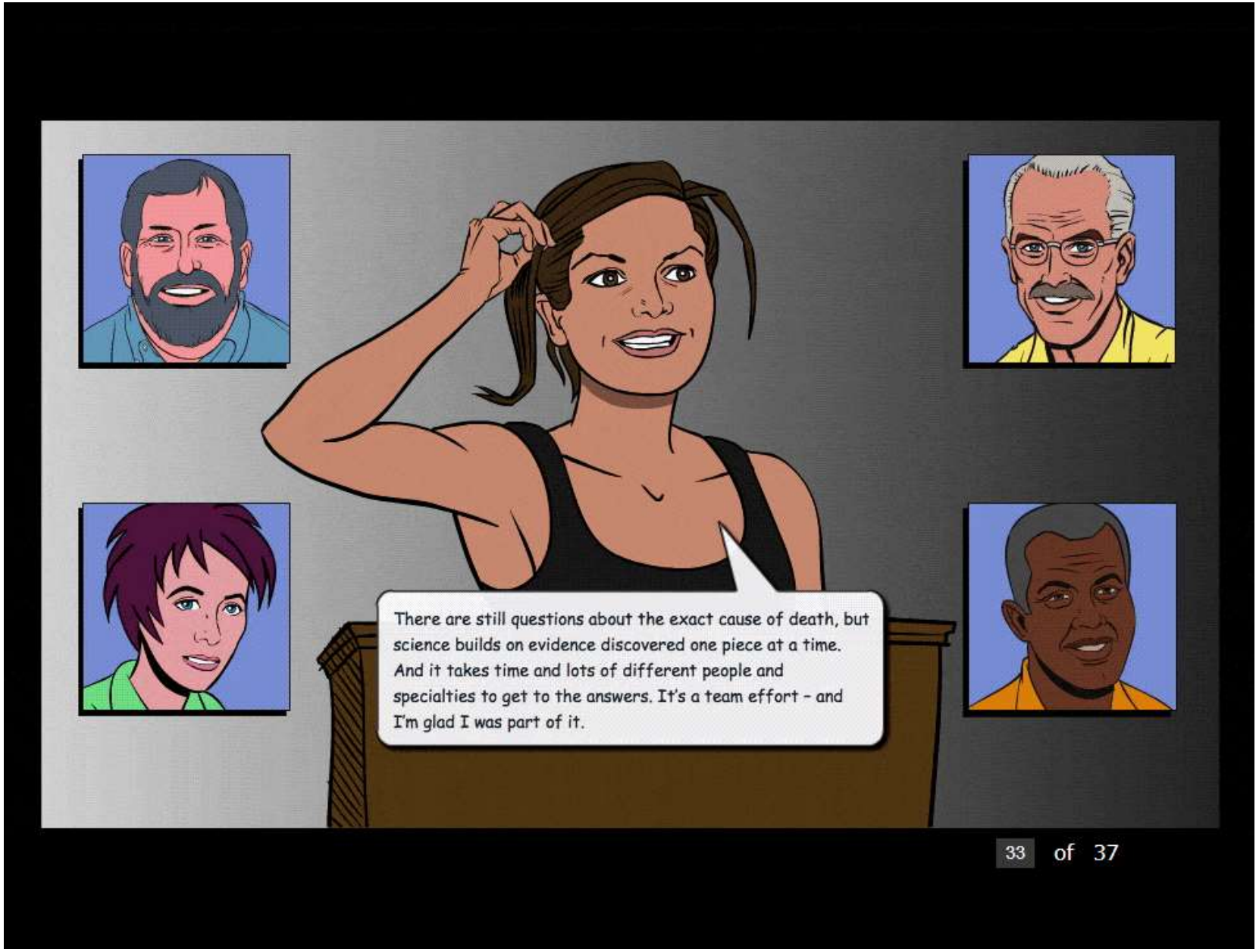

Sure, this is some nameless kid from long ago who had a rough life. And died worse. But he deserves to have his story told.
28 of 37


And I think he would want you to tell it. Just describe what you did to find him again, and how you used science to uncover the truth about him.

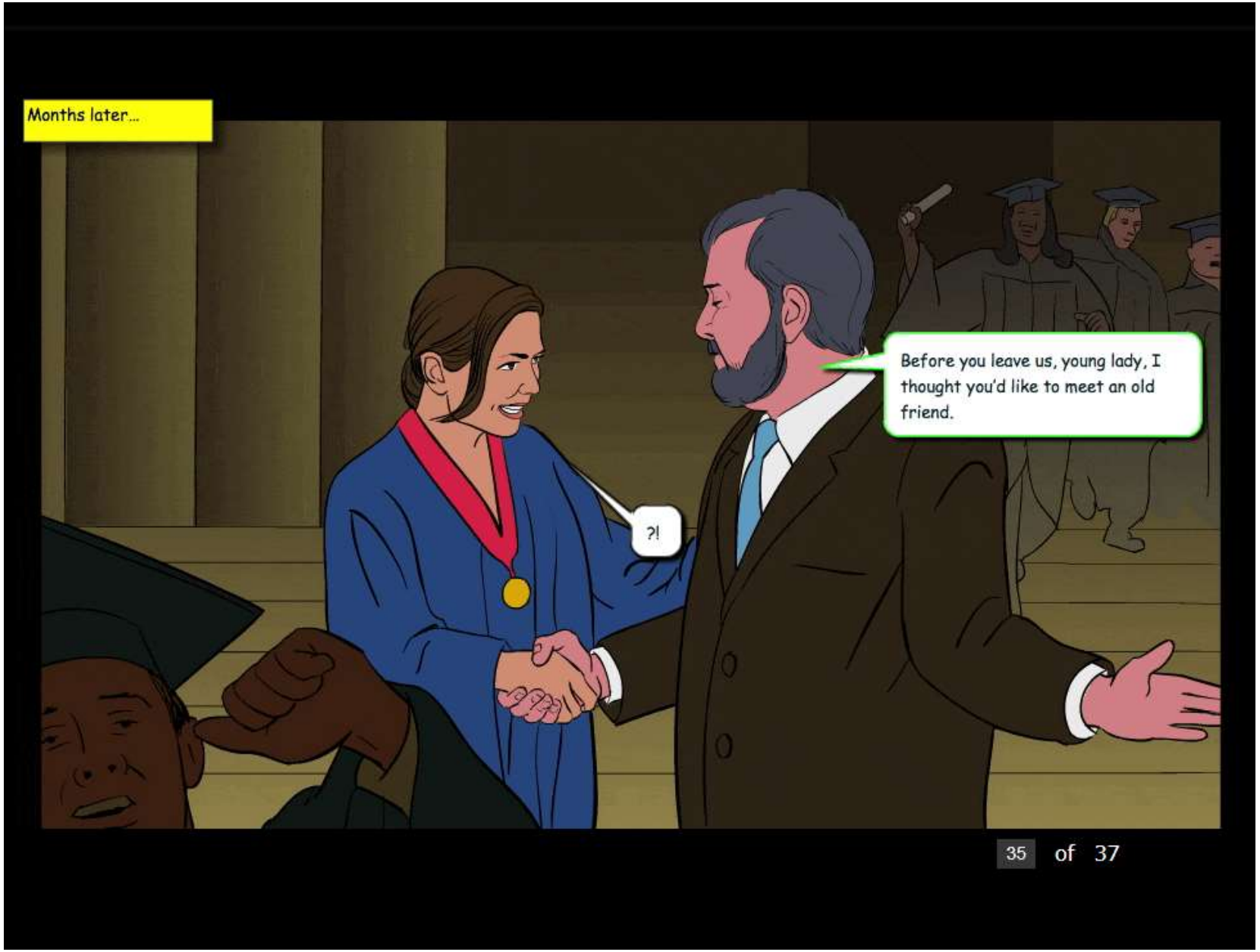

Let the audience experience what it all meant to you.
That'll be plenty exciting!
I will.
30 of 37

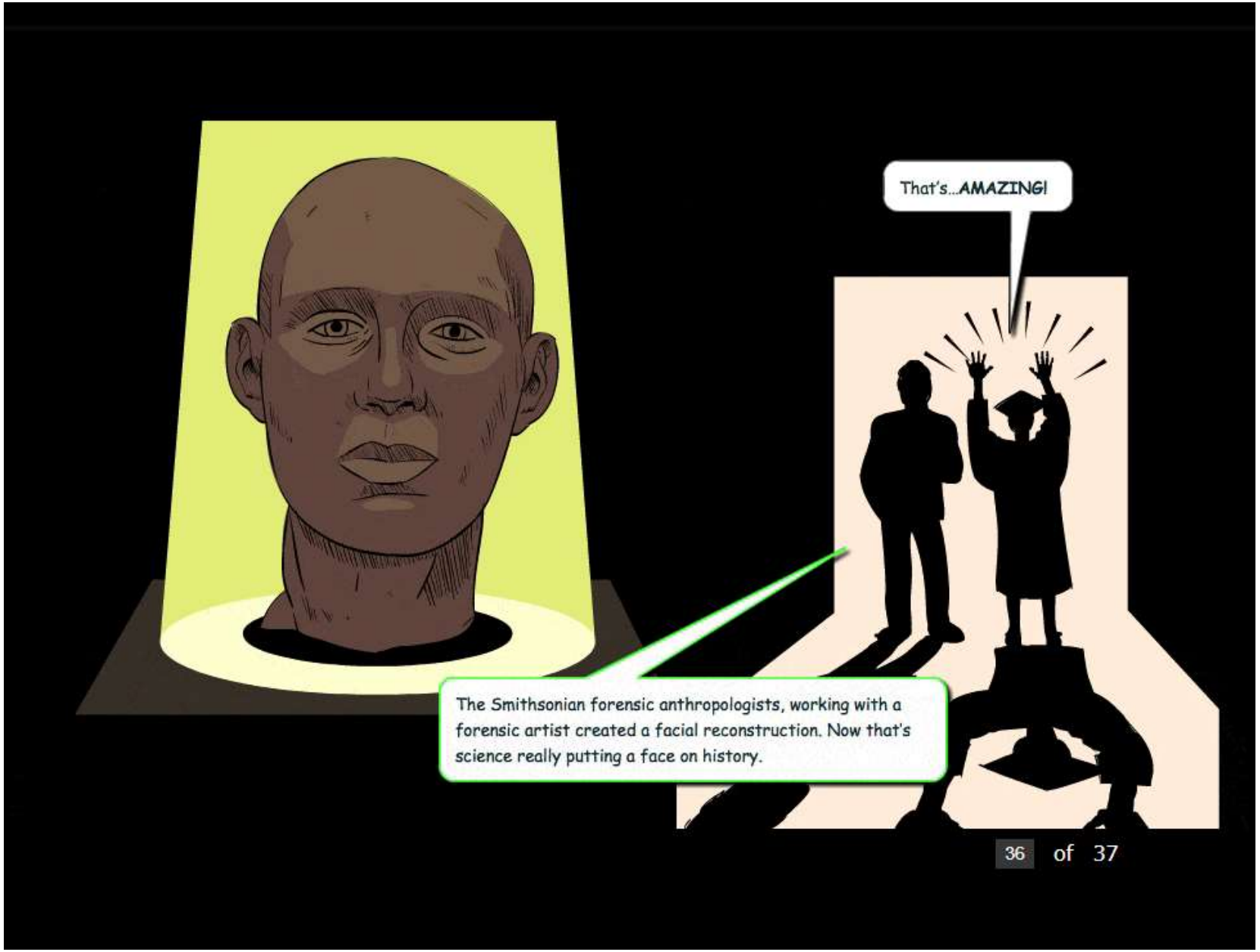

Ana concludes her final presentation.
WRITTEN IN BONE
So...all of this evidence from the scene, the burial location, the skeleton, and what we can learn from historic documents, suggests that the boy was a 15 to 17 year old European indentured servant. The bones show evidence of a hard life and early death.
31 of 37


Final analysis of the wrist fracture indicates that the boy was probably **murdered**. He did **not** die as a result of disease or accident.
The perimortem wrist fracture is consistent with a defensive injury. The boy used his right arm to block a strong blow. The fracture itself wouldn't have killed him, but the defensive injury combined with his hidden burial, points to a **violent death**.

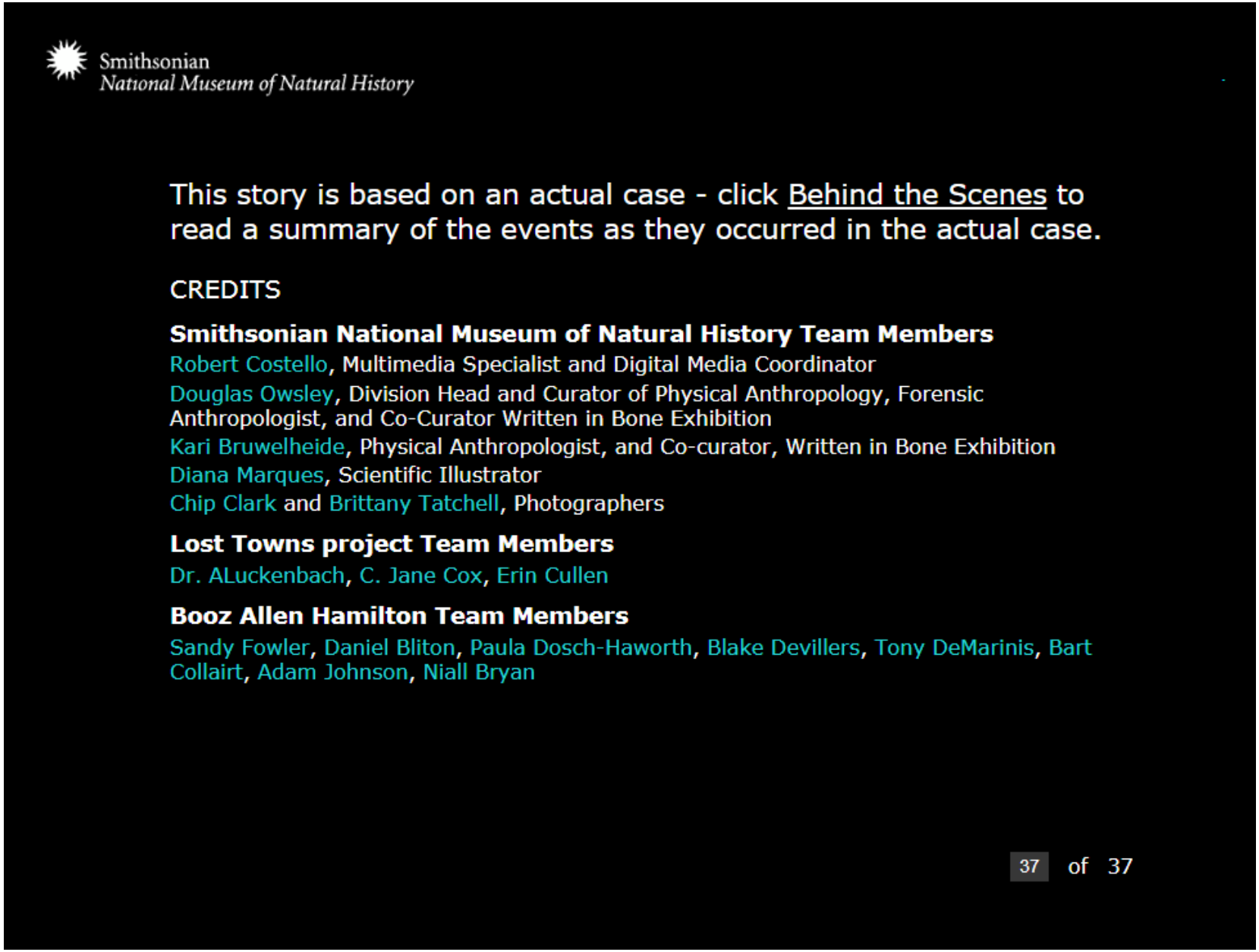

There are still questions about the exact cause of death, but science builds on evidence discovered one piece at a time. And it takes time and lots of different people and specialties to get to the answers. It's a team effort – and I'm glad I was part of it.


I'll take a few questions now, but the person I'd, uh, most like to ask some questions – and thank – can't…exactly be here.


Months later...
Before you leave us, young lady, I thought you'd like to meet an old friend.
?!
35 of 37



ARTICLE: FORENSIC FACIAL RECONSTRUCTIONS (PDF)



ARTICLE: BEHIND THE SCENES (PDF)