

# ROOTS OF THE PAST

## NOURISH PRESENT RESEARCH



SCRIPT & STORY BY  
**JAN FRIESEN**  
**JOHN VAN STAN**

ILLUSTRATED BY  
**TYASSETA**  
**OCKTO BARINGBING**



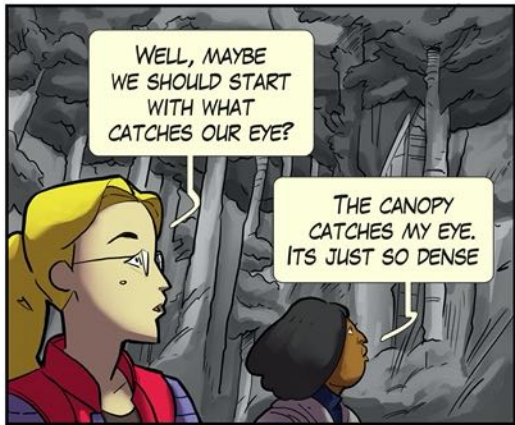
THIS COMIC IS BASED ON THE ARTICLE,  
'EARLY EUROPEAN OBSERVATIONS OF PRECIPITATION PARTITIONING BY VEGETATION:  
A SYNTHESIS AND EVALUATION OF 19TH CENTURY FINDINGS' BY JAN FRIESEN AND  
JOHN T. VAN STAN II, PUBLISHED IN *GEOSCIENCES* 9(10):423,  
[HTTPS://DOI.ORG/10.3390/GEOSCIENCES9100423](https://doi.org/10.3390/geosciences9100423).





WHAT WILL YOU DO FOR YOUR THESIS RESEARCH?

NO IDEA; IT SEEMS LIKE EVERYTHING'S BEEN DONE ALREADY...



WELL, MAYBE WE SHOULD START WITH WHAT CATCHES OUR EYE?

THE CANOPY CATCHES MY EYE. IT'S JUST SO DENSE



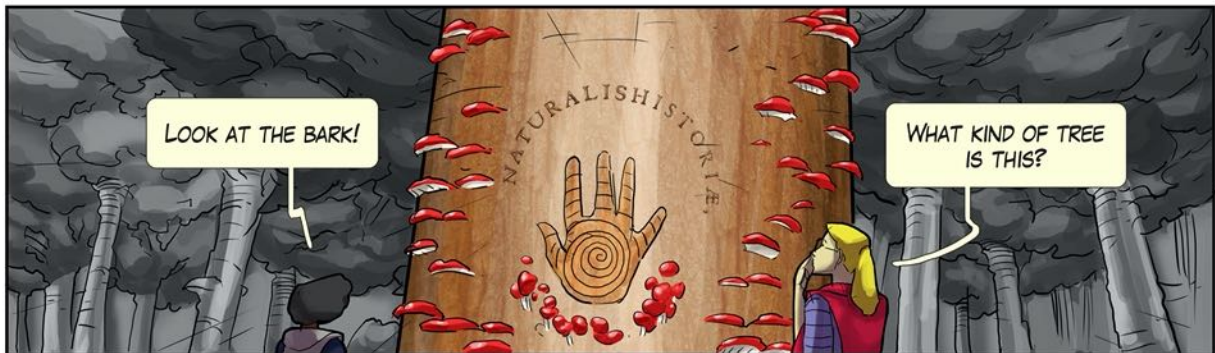
--AND COMPLEX!

I WONDER HOW MUCH SUNLIGHT IT BLOCKS.

BET IT BLOCKS A LOT OF RAIN AND SNOW.



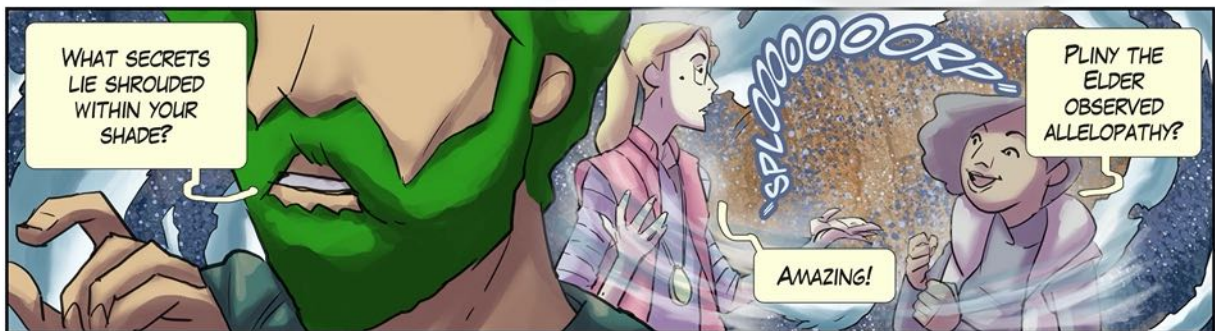
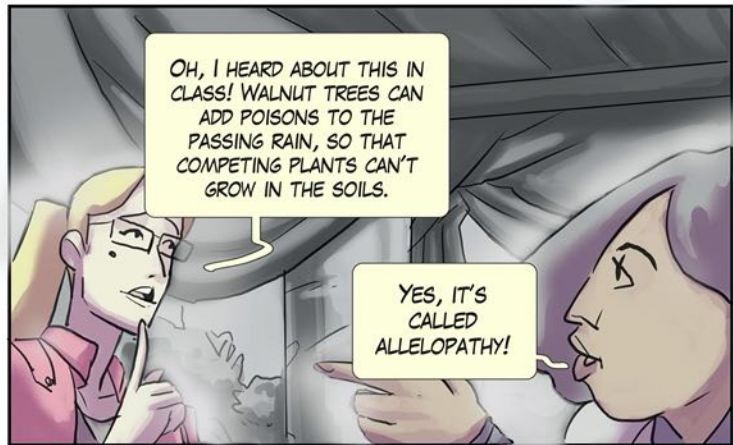
WOAH!



LOOK AT THE BARK!

WHAT KIND OF TREE IS THIS?



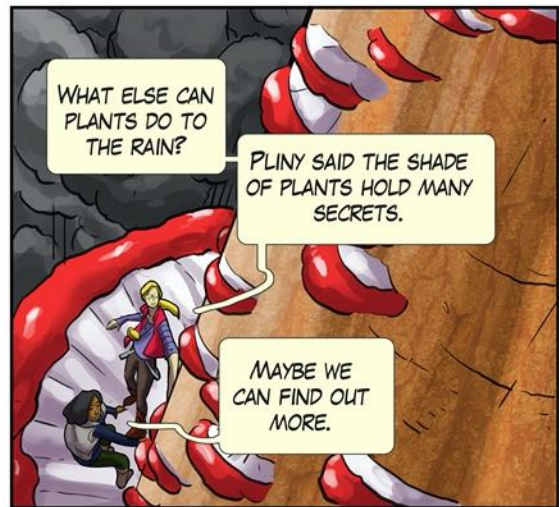






DID WE JUST GO BACK TO ANCIENT ROME?

I THINK WE DID!



WHAT ELSE CAN PLANTS DO TO THE RAIN?

PLINY SAID THE SHADE OF PLANTS HOLD MANY SECRETS.

MAYBE WE CAN FIND OUT MORE.



DO YOU SEE ANY MORE HANDPRINTS?

NATURALISHISTORIE

LOOK...WHAT'S THAT UP THERE?



PHEW! WE FOUND ANOTHER ONE.

كلمة ابن بطوطة

WHAT LANGUAGE IS THAT? ARABIC?

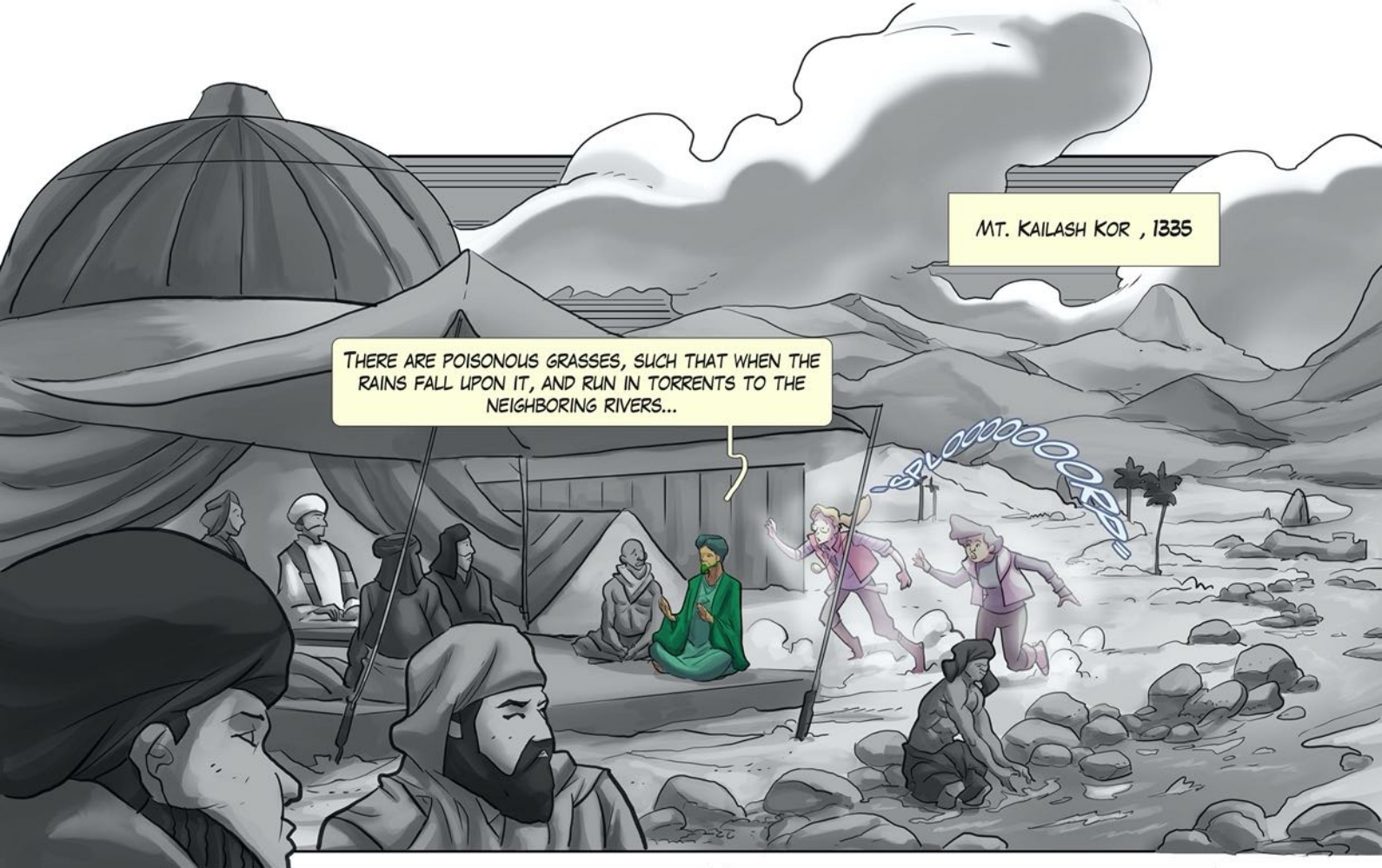


LETS SEE WHERE WE END UP!



MT. KAILASH KOR , 1335

THERE ARE POISONOUS GRASSES, SUCH THAT WHEN THE RAINS FALL UPON IT, AND RUN IN TORRENTS TO THE NEIGHBORING RIVERS...

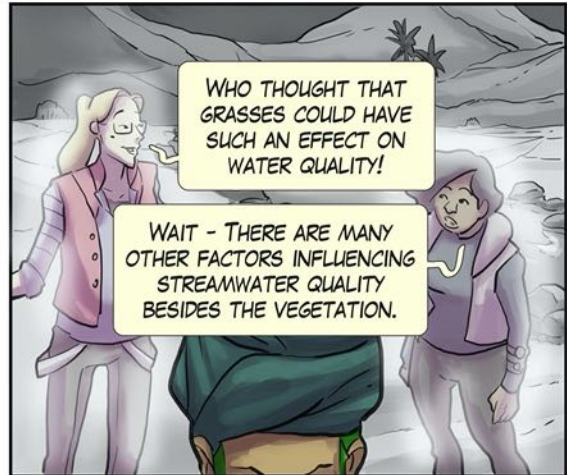


...NO ONE DARES DRINK OF THE WATER DURING THE TIME OF THEIR RISING; AND SHOULD ANYONE DO SO, HE DIES IMMEDIATELY.



WHO THOUGHT THAT GRASSES COULD HAVE SUCH AN EFFECT ON WATER QUALITY!

WAIT - THERE ARE MANY OTHER FACTORS INFLUENCING STREAMWATER QUALITY BESIDES THE VEGETATION.



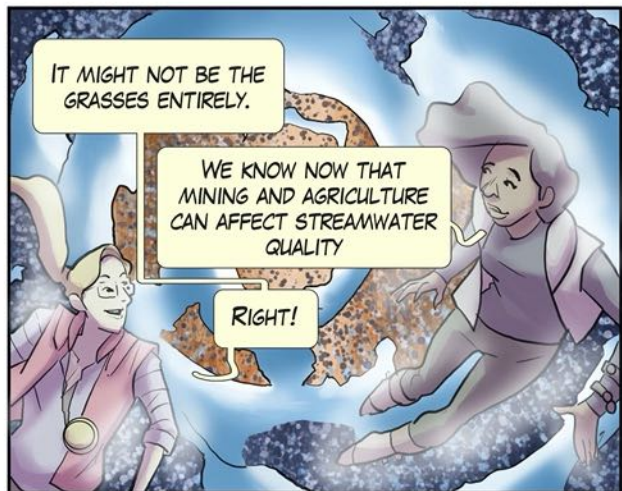
...THERE ARE MINES OF GOLD ON THESE MOUNTAINS... AND THE PLAIN BELOW IS USED FOR AGRICULTURE.



IT MIGHT NOT BE THE GRASSES ENTIRELY.

WE KNOW NOW THAT MINING AND AGRICULTURE CAN AFFECT STREAMWATER QUALITY

RIGHT!



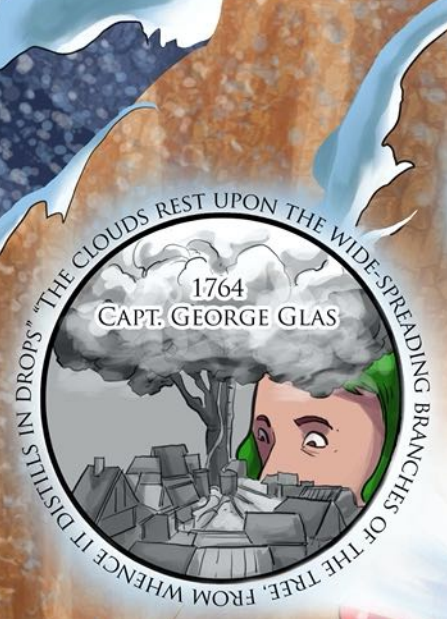




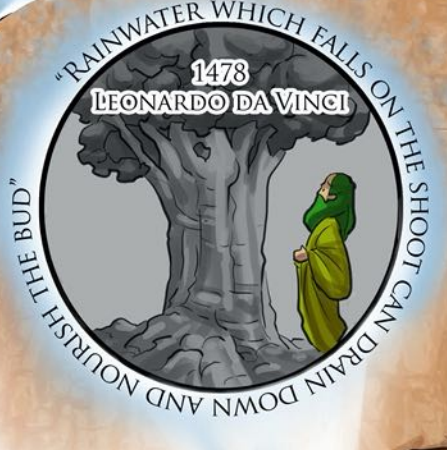
IT'S AMAZING HOW EARLY ALL THESE PROCESSES WERE OBSERVED!



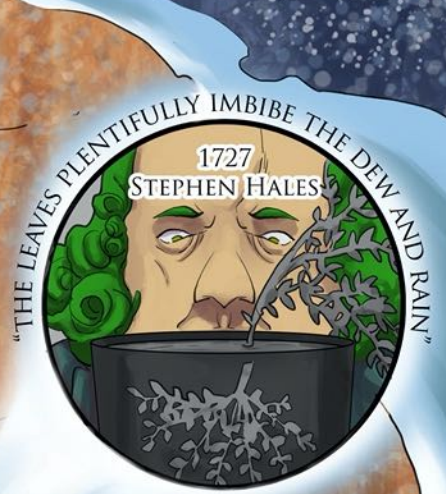
THERE ARE SO MANY HANDPRINTS. COME ON!



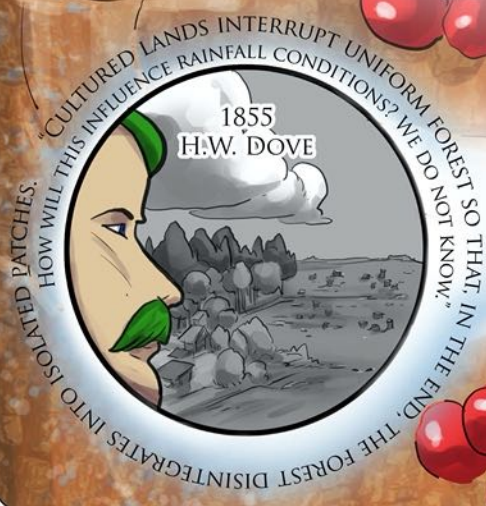
1764  
CAPT. GEORGE GLAS



1478  
LEONARDO DA VINCI

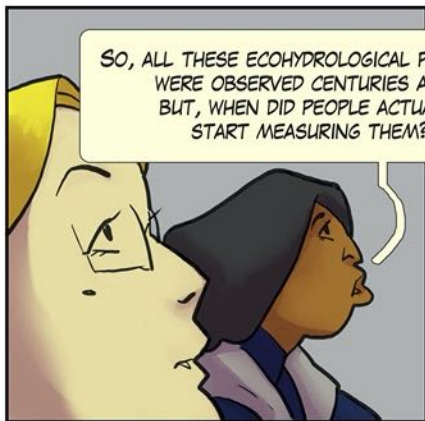


1727  
STEPHEN HALES



1855  
H.W. DOVE





SO, ALL THESE ECOHYDROLOGICAL PROCESSES WERE OBSERVED CENTURIES AGO. BUT, WHEN DID PEOPLE ACTUALLY START MEASURING THEM?



SAXONIAN ACADEMY FOR FORESTERS AND FARMERS, THARANDT, GERMANY, 1855



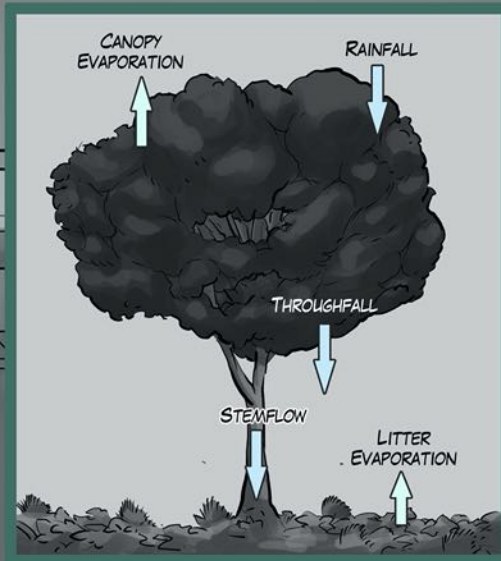
SIR, WE NEED TO QUANTIFY HOW MUCH RAIN, SNOW AND CONDENSATION...



ACTUALLY REACHES SOILS.

I HAVE AN IDEA...





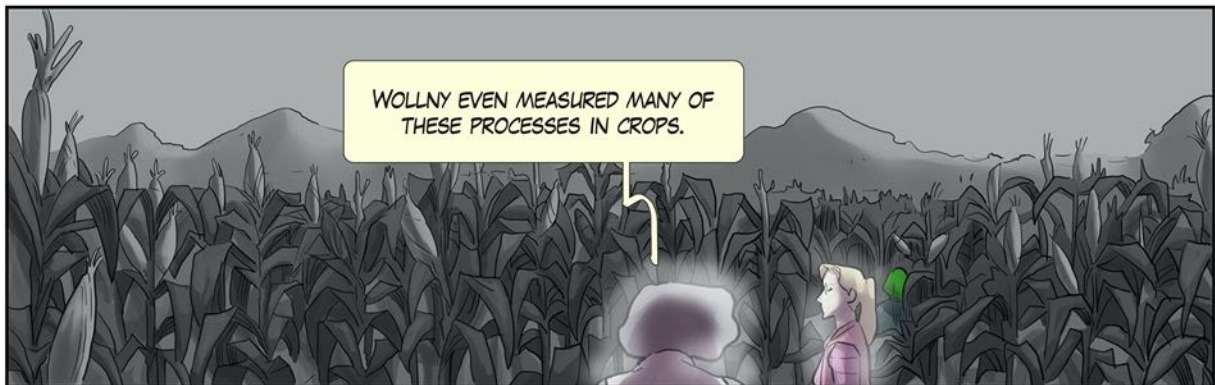
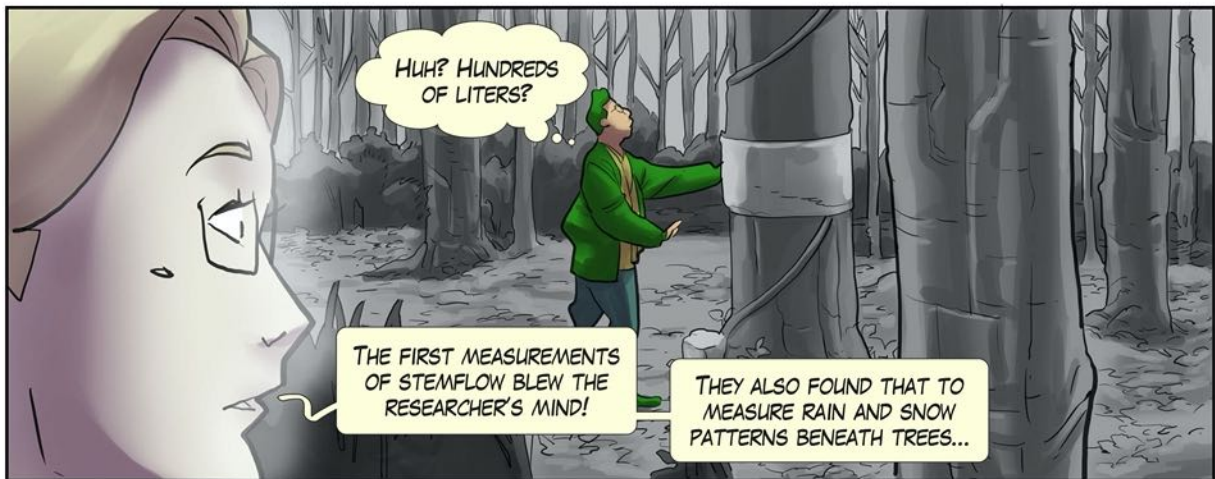
KRUTZSCH'S IDEA WAS SUPPORTED AND SPREAD THROUGHOUT THE GERMAN KINGDOMS

MANY OTHER EUROPEAN COUNTRIES BECAME INTERESTED IN THIS TOPIC, AS WELL!

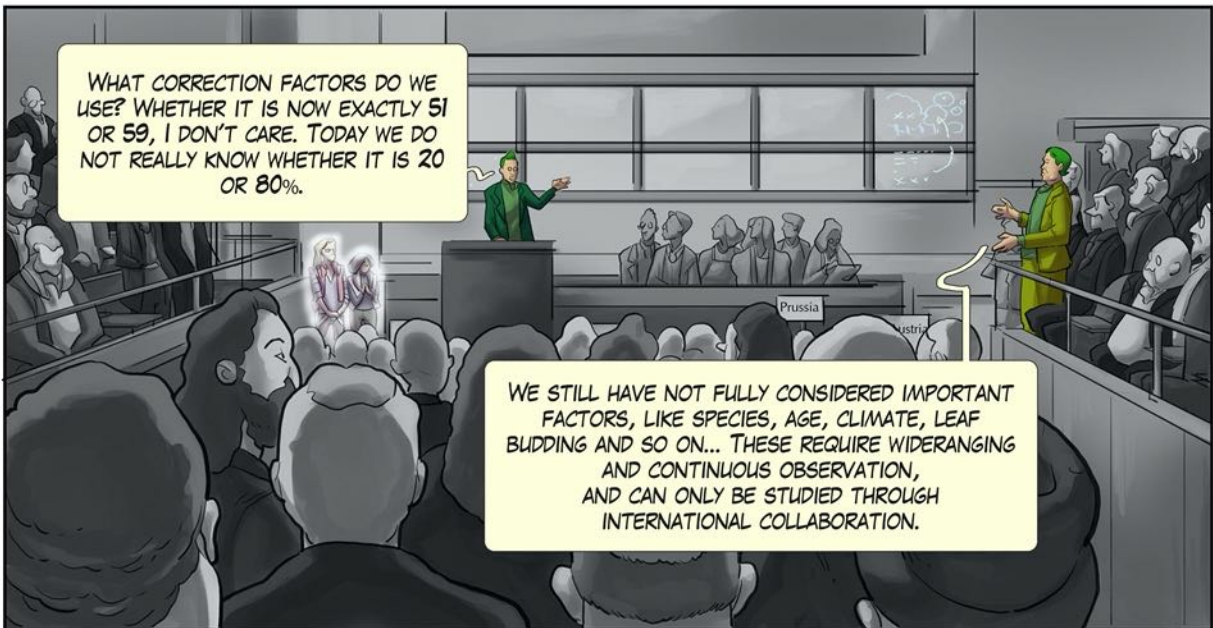
- 'forest water budget'
- 'forest-meteorological monitoring stations'









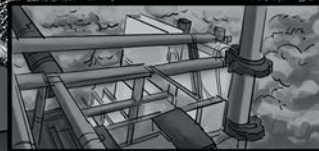




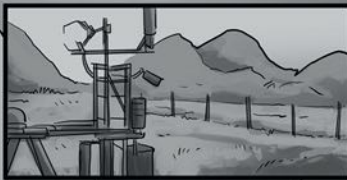


CZEN

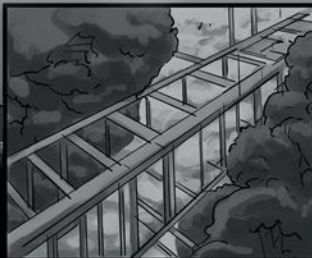
TERENO  
TERRESTRIAL ENVIRONMENTAL OBSERVATORIES



TAHMO



GLEON  
global lake ecological observatory network



WAIT - WE'RE PART OF AN INTERNATIONAL NETWORK.







LET'S KEEP CLIMBING!



HORTON? I JUST READ THAT IN MY ECOHYDROLOGY COURSE!

GUESS WE KNOW WHERE IT GOES FROM HERE, THEN.



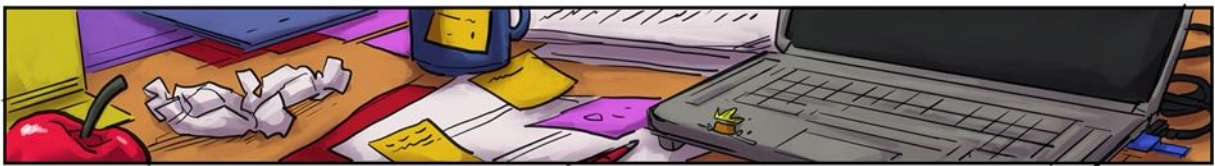
IT IS GETTING LATE. LET'S GO. WE CAN COME BACK.



NOBODY LOOKED AT... HMMM...



I HAVE AN IDEA!







LET'S SEE WHAT OUR 'EYES IN THE SKY' CAN TELL ME ABOUT...

WHERE EXACTLY DOES RAINWATER GO BENEATH THE CANOPY...





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