



Muddy Knowledge

Learning with mangrove swamp rice
farmers in Guinea-Bissau

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To understand:

how mangrove swamp rice farmers manage
water

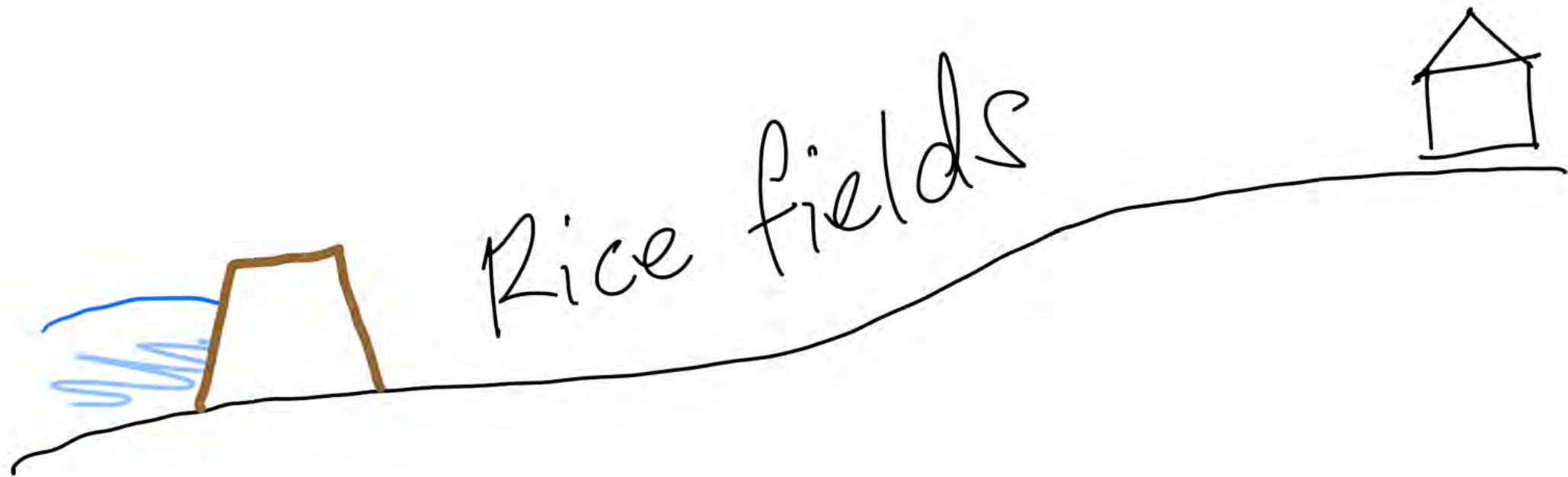
how their knowledge and practices adapt to
socio-environmental and technological change



Let's cut mangroves!

Village

Mangrove Forest



18 months of fieldwork (2021: 4 months, 2022: 8, 2023: 6)

Cacheu

1 – Elalab

2 – Djobel

3 – Elia

Oio

4 – N'tchugal

5 – Sugum

6 – Malafu

Tombali

7 – Quibil

8 – Djiu d'Fanda

9 – Cadique-Mayla

10 – Cadique-Yala

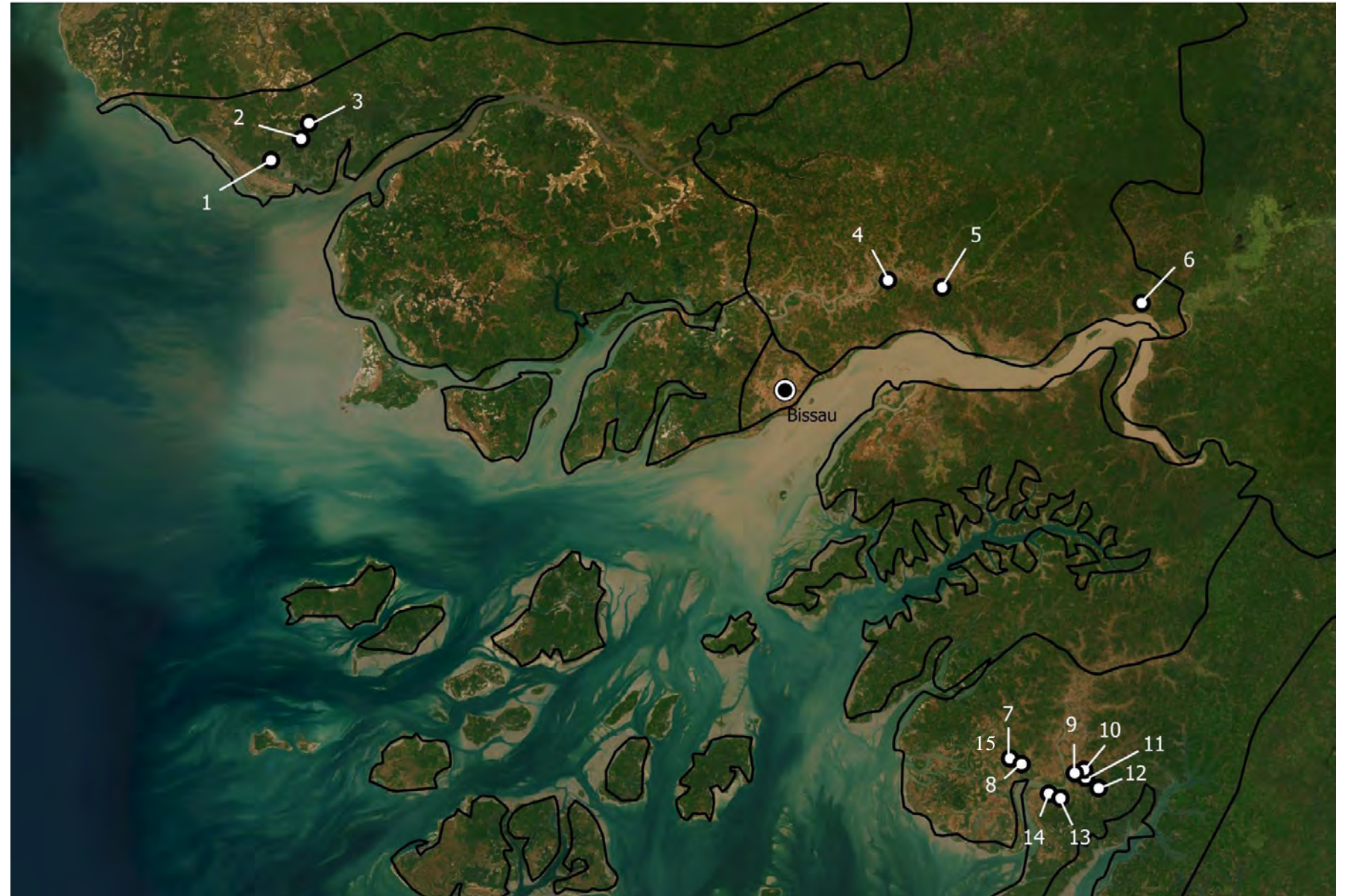
11 – Cadique-Nalu

12 – Caequenem

13 – Cafal

14 – Cafine

15 – Catió





My research



journey

Story time

Plan collaborative dike-building exercise



Consult farmers for dates based on lunar calendar



Story time

Plan collaborative dike-building exercise



Consult farmers for dates based on lunar calendar

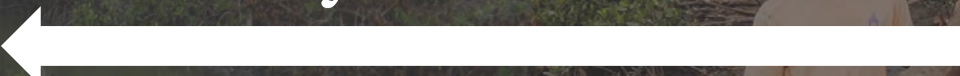


Selected dates coincided when tides were strongest

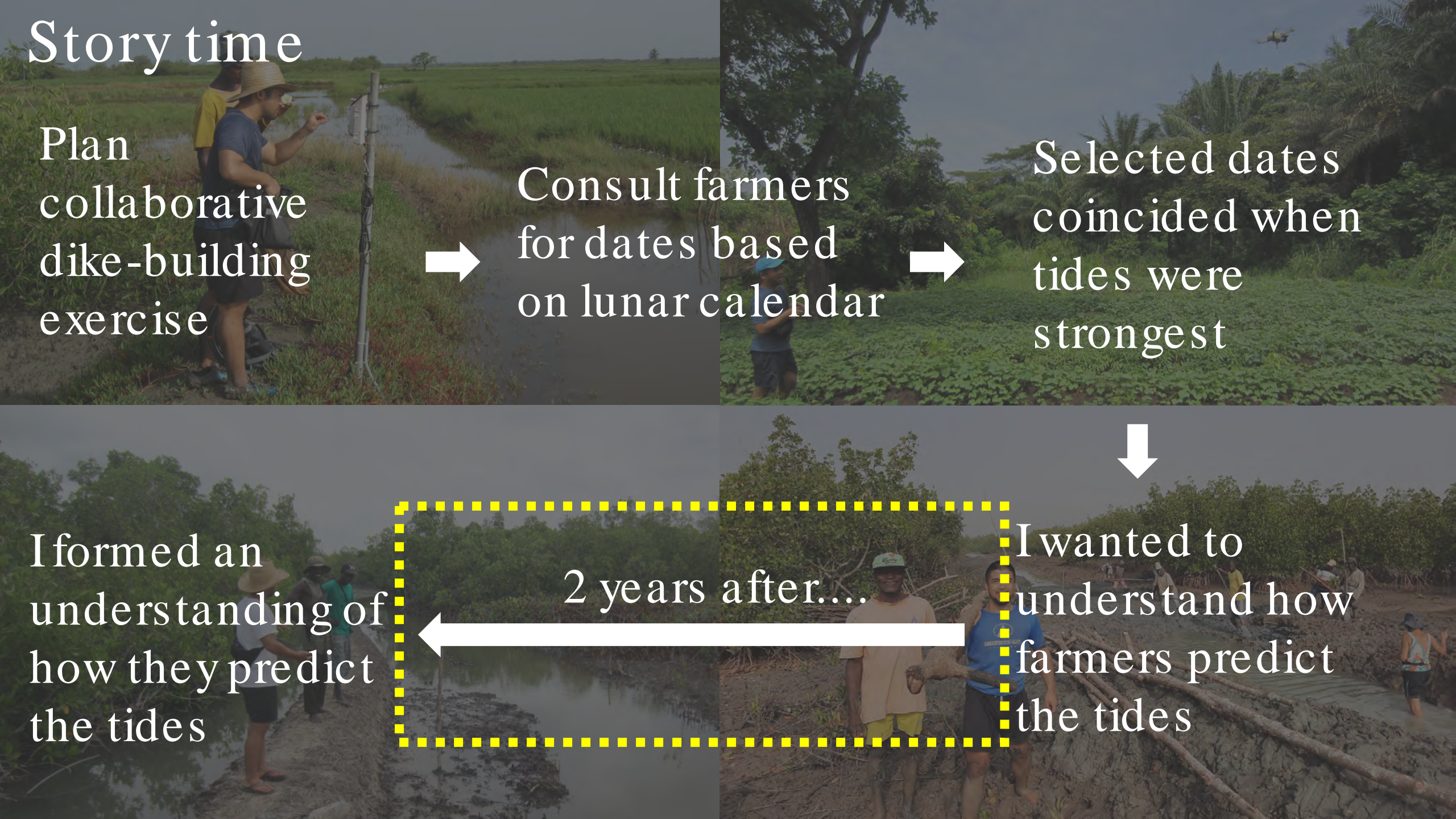


I formed an understanding of how they predict the tides

2 years after...



I wanted to understand how farmers predict the tides





1 Seeing

2 Entering

3 Feeling

the mud

1 Seeing



An aerial photograph of a wide, muddy riverbed. The water is shallow and brown. On the left bank, a group of about ten people are walking along the edge. The surrounding area is covered in dense, green mangrove-like vegetation. The word "Assumptions" is overlaid in white serif font in the center of the image.

Assumptions

2 Entering



A group of men are working in a muddy, swampy area, likely a mangrove forest. The men are wearing simple clothing, including a white shirt and red shorts, and a red tank top. One man in the foreground is holding a long wooden pole. The background is filled with dense mangrove vegetation under a clear sky. The overall scene is dimly lit, suggesting an overcast day or late afternoon.

Confrontation

Discomfort

Doubts

3 Feeling





What they observe

Day-to-day behaviour of high water

Strength of water current

Presence and direction of wind

Presence of waves

Amount of rainfall the past days

Moon shape at a certain location
and time



What I assumed they observe

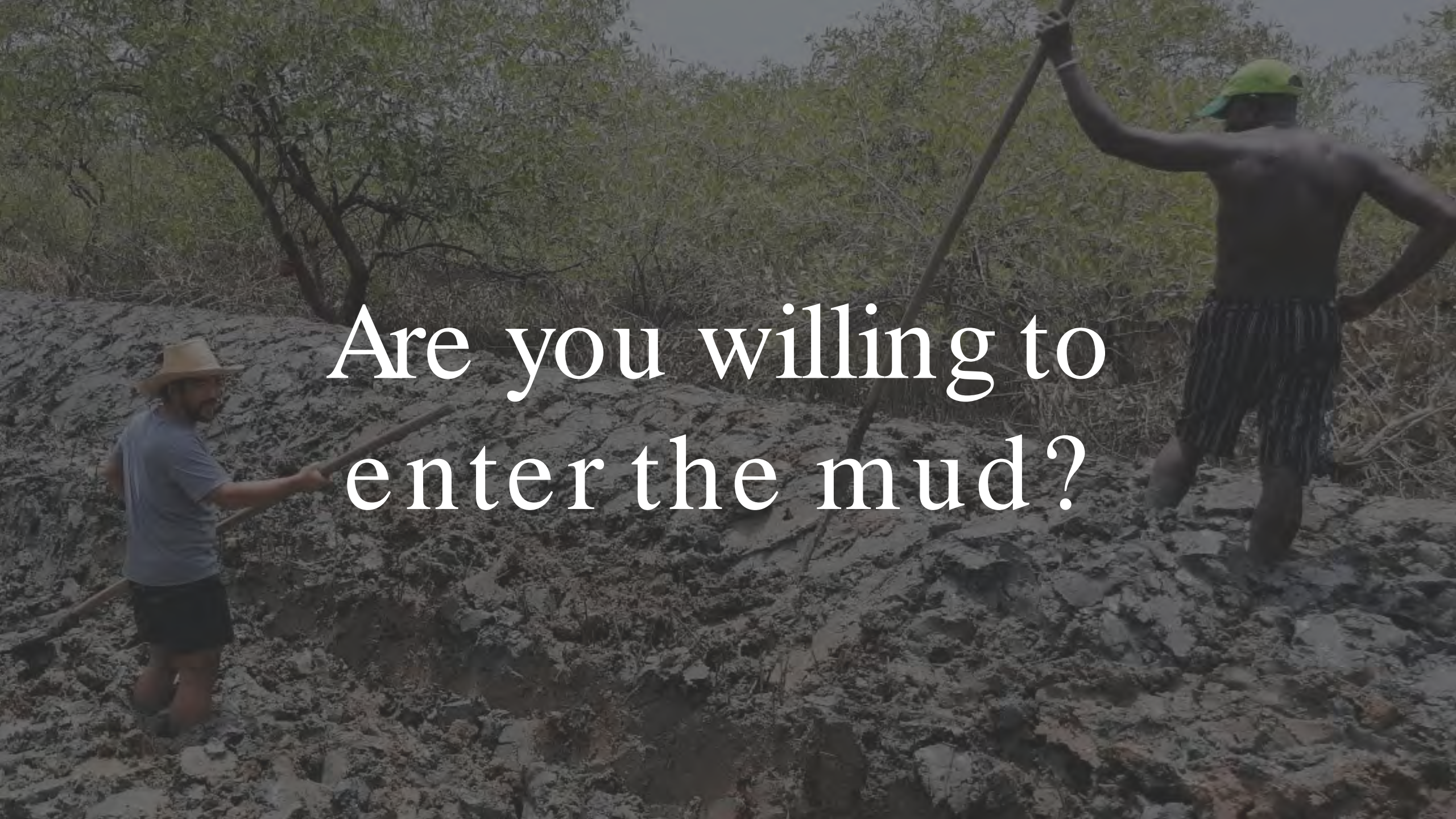
Moon phase which is then
used as input to a model
(lunar calendar)

A photograph of two men working in a field. The man on the left is wearing a light blue t-shirt, dark shorts, and a wide-brimmed hat. He is holding a long wooden pole. The man on the right is shirtless, wearing a green cap and dark shorts, and is also holding a long wooden pole. They appear to be engaged in manual labor, possibly related to agriculture or land management. The background consists of dense, green vegetation. The text "Re-orientation" is overlaid in the center of the image in a white, serif font.

Re-orientation

A photograph of two men working in a field. The man on the left is wearing a light blue t-shirt, dark shorts, and a wide-brimmed hat. He is holding a long wooden staff. The man on the right is shirtless, wearing a green cap and dark shorts, and is also holding a long wooden staff. They are standing in a field of dark, rocky soil. The background is filled with dense, green foliage. A large, white, serif text overlay is centered in the image, reading "What does it mean to Learn with?".

What does it mean to
Learn with?

A photograph showing two men wading through a thick, dark river of mud. The man on the left is wearing a light blue t-shirt, dark shorts, and a wide-brimmed hat. He is holding a long wooden pole. The man on the right is shirtless, wearing a green cap and dark shorts, also holding a long wooden pole. The background consists of dense, green foliage. The text "Are you willing to enter the mud?" is overlaid in white, serif font in the center of the image.

Are you willing to
enter the mud?

The background is a dark, textured surface, possibly a rocky or sandy terrain. A large, dark log or piece of driftwood is positioned vertically in the center. The overall lighting is dim, creating a moody atmosphere. The text "Any questions?" is overlaid in a white, serif font, centered horizontally and slightly above the vertical center.

Any questions?