



**ICDP workshop on Deep Drilling in the Turkana Basin:
*Tracking the Environmental Forces Driving Hominin Evolution***

**July 11-14, 2022 Workshop
Tribe Hotel, Nairobi, Kenya**

PROJECT GOAL- Recover a sediment core spanning last 4 Ma from the Turkana Basin

WORKSHOP GOALS: to path the way towards an ICDP full proposal, including

- Generate project ideas, including through new collaborations
- Outline and develop diverse research questions/hypotheses
- Matching scientific ideas with drilling and funding opportunities, identification of potential funding sources
- Establish impactful directions for broader impacts/outreach with Kenyan partners-

Consider timelines for developing/submitting proposals

DAY #1

Meeting check-in beginning at 8:30 am

Day 1- Morning Session 1 at 9:00 am

Welcome and Overview for Workshop (5 min- Cat Beck and Lydia Olaka)

Participant Introductions (1 min/person- 45 min)

ICDP funding opportunities and operational support (30 min - Thomas Wiersberg)

COFFEE at 10:15

Day 1- Morning Session 2 at 10:30 am: Overview talks (20 min) on geology, paleoclimate, tectonics, paleoanthropology, and modern ecosystems of the Turkana Basin

Turkana Basin overview (20 min- Craig Feibel)

Plio-Pleistocene paleoclimate (20 min- Melissa Berke)

East African Rift System overview (20 min- Chris Scholz)

EARS Hydroclimate (20 min- Lydia Olaka)

Paleoanthro for geologists- (20 min- Chris Campisano)

Modern ecosystems (20 min- James Last)

LUNCH at 12:15 pm

Day 1- Afternoon Session 1 at 1 pm

Participant lead session on goals and challenges with DDTB

COFFEE at 2:30 pm

Day 1- Afternoon Session 2 at 3 pm

Goal- Collectively explore research interests and synergies, and generate a list of research questions, project objectives, and deliverables

Announcements (outline expectations for tomorrow/next steps; excursion info)

DAY #2

Day 2- Morning Session 1 at 8:30 am

Announcements

Recap of Day 1 Afternoon- introduction of emerging themes

Break into Discussion Theme groups focused on emerging themes

COFFEE BREAK at 10:15 am

Day 2- Morning Session 2 at 10:30 am

Reports back from Discussion Theme Groups

LUNCH at 12:15 pm

Excursions to the National Museum of Kenya

Departing at 1:30 pm from the front of the hotel in busses

DAY #3-

Day 3- Morning Session 1 at 8:30 am: Practicalities of planning and previous work (10 min talks with Q&A)

Previous work/What is known?

Cores- Melissa Berke

Outcrops- Craig Feibel

Turkana Archaeology/Paleoanthro- Kylo Manthi/Emmanuel Ndiema

Geothermal- Geoffery Mibei

Turkana Conditions- Anders Noren/Craig Feibel/John Malala

Seismic Assessment- Chris Scholz

Downhole Logging- Simona Pierdominici/Christian Zeedan

COFFEE BREAK at 10:15 am

Day 3- Morning Session 2 at 10:30 am: What needs to take place before drilling? (90 min total)

Community Relationships (30 min)- Lydia Olaka/Rahab Kinyanjui/Dino Martins/Kat Cantner

What are the needs on the ground? What's worked? What needs to be developed?

Participant Discussion Groups (~1 hr)- Contributions to pre-drilling science and outreach

LUNCH at 12:15 pm

Day 3- Afternoon Session 1 at 1 pm

Report back from Morning Session (10 min- Verena Foerster)

Presentation of compiled list of science questions (5-10 min- Jose)

Group Discussion- "Last call" -> what's missing?

Pro's and Con's of three drilling strategies (10-15 min- Cat)

Where to drill? (10-15 min- Chris Scholz)

Discussion by Discipline 1 (with leader and rapporteur ~30 min)

- 1) Are there general pro's/con's that we missed?
- 2) Are there other ideas for drilling?
- 3) How would your science/interests be enabled by the transect?
- 4) Are there research questions you would add?
- 5) Known-unknowns: Is there any information/knowledge 'missing'?
- 6) Are there any barriers your science would encounter?

COFFEE at 2:30 pm

Day 3- Afternoon Session 2 at 3 pm

Reports back from each group (~30 min)

Discussion by Discipline 2 (with leader and rapporteur- 45 min)

What would you need to make your science happen?

Including pre-drilling data

How do things need to be handled/order of operations?

Logistical considerations (permitting/equipment/etc.)

Funding- how much money (approx) do you need?

Reports back from each group (~30 min)

Closing synthesis and intro of what resources do we bring (5-10 min- Cat)

DAY #4-

Day 4- Morning Session 1 at 9 am

How do we fund a) the drilling, b) the science, c) the outreach/broader impacts?

How have other projects been funded? (15 min - Anders and Thomas)

Discussion groups (decide on how to break these up?) (~60 min with a rotate)

- 1) What funding opportunities exist?
- 2) What academic, industry, and community partnerships are key?
- 3) How could you contribute to the broader funding efforts?
- 4) What capacity building/outreach is essential to include?

COFFEE at 10:30 am

Day 4- Morning Session 2 at 11 am

Reports back from each group (~30 min)

Timeline of planning (how do we get where we want to go?)

Preliminary timeline
Workshop report
Funding deadlines
Conclusions and thanks!

LUNCH at 12:30 pm

Informal conversation and departures