

UC San Diego

Field Reports

Title

Tren Maya Cave Scans, Quintana Roo, Mexico November 23rd - October 1st 2022

Permalink

<https://escholarship.org/uc/item/3v56748x>

Author

Mcavoy, Scott Patrick

Publication Date

2022-10-04

Copyright Information

This work is made available under the terms of a Creative Commons Attribution-NonCommercial License, available at <https://creativecommons.org/licenses/by-nc/4.0/>

Tren Maya Cave Scans, Quintana Roo, Mexico

Nov 23 - Oct1 2022

Prepared by Scott McAvoy 10/4/2022

Dominique Rissolo - UC San Diego

Scott McAvoy - UC San Diego

Holley Moyes - UC Merced

9/23/22

arrived in Cancun, drove to Akumal. Picked up truck from CINDAQ and visited briefly. Field truck had a screw in its tire, slowly leaking air.

9/24/22

Drove north to visit field house and pay rent to Don Ramon in Sulfurino. Stopped by Robart and saw children's art studio. These guys love baseball.

9/25/22

UC San Diego Dominique Rissolo Scott McAvoy

UC Merced Holley Moyes

Cindaq/Indepentant Alex Alvarez

Description: Scanning 5 entrances to Hoyo Negro.

Ik Balam

Vierken

Conche

Oasis

Fenomeno

HNIB1 - test scan 1, only Dominique in cave

HNIB2 - - test scan 2, only Dominique in cave

HNIB2 - - full scan, needs colorizing, Dominique in kayak, pushed around by.

Raw data shows reflected geometry below waterline.

9/26/22

CINDAQ Team Sam Meacham Fred Devos Julian Osama

UC Merced Holley Moyes

UC San Diego Dominique Rissolo Scott McAvoy

Description: Cave rented by CINDAQ, has four entrances named for their directions relative to the center of the depressions. Fred Devos did a good chunk of scanning, wading through knee deep water. We were interviewed about the project and the hovermap inside one of these caves.

Scans:

hovermap_lidar\Sagnw2_01

hovermap_lidar\Sagnwbroll_01 - done for film purposes, may not have any real value

hovermap_lidar\Sagse_01

hovermap_lidar\Sagsouth_01

hovermap_lidar\Sageast_01

hovermap_lidar\Sagglobal_01 - tying together all 4 entrances from exterior, did not go inside caves by
GPS Coordinates(need more)

9/27/22

Ocho Balas ('8 bullets' in english), also known as 'Oratorio' in Dominiques previous work.

INAH team (need contact info from holley's field notes) Helena Barba
Meinecke Gabriel - Josue - Eric - Kay - Rebecca -

(need other names and emails) UC San Diego Dominique Rissolo Scott
McAvoy

UC Merced Holley Moyes

Description: Scanning with Hovermap, handheld. Dominique had published on this cave in 2015 (get citation), describing a shrine built near one cave entrance. The Maya Train project cut a swath through the jungle for "tramo cinco". We walked about 1km down this rough path cut through the jungle, then a couple hundred meters through jungle to a cave entrance. INAH had recently identified several burials in a neighboring cave. Half of the INAH team split off to explore, while Helena, Gabriel, Eric, and (NAMES NEEDED!) guided us to the shrine. we continued to the Oratorio shrine Dominique and team had previously documented and performed three hovermap scans.

Peter Strauss had mapped all of the pasillos some time back, we need to get that map and refer.

Scans:

hovermap_lidar/oratorio1 - a quick aborted scan, stopped after a few seconds as the gopro sd card was full. This scan shows the front face of the shrine

hovermap_lidar/oratorio2 - a large cave-wide scan with no color, performed by Dominique

hovermap_lidar/oratorio3 - colorized scan focusing on cave shrine, performed by Helena Barba

hovermap_lidar/oratorio70020 - TS70020 cave as identified by INAH, containing narrow I shaped pathway architecture, it's not clear if burial sites were included, ties three different entrances (skylights)

Satellite Imagery

from Planet.com, Scott's research license. Must be cited as Planet Team (2022). Planet Application Program Interface: In Space for Life on Earth. San Francisco, CA. <https://api.planet.com>.

GPS Coordinates(need more)

9/28/22

Ochos Balas day 2, Full Cave system, tying in with multiple scans

INAH team (need contact info from holley's field notes)

Josue -

Mitch -

Eric -

Kay -

Rebecca -

Holley Moyes

Dominique Rissolo

Description

Scott stayed home for a data day, (Dominique provides description). Large system, focused on creating tie scans to join the system to previous days scans. Lots of pasillo in this system. Moved fast as a team.

This cave will require a lot of alignment and post processing.

Scans - no reference map, all of these scan names refer to INAH markers

hovermap_lidar\oratorioAE4_01
hovermap_lidar\oratorioAM218_01
hovermap_lidar\oratorioCE61_01
hovermap_lidar\oratorioM212_01
hovermap_lidar\oratorioT571017_01
hovermap_lidar\oratorioT571024_01
hovermap_lidar\oratorioT5710351_01
hovermap_lidar\oratorioT57000202_01

9/29/22

Manitas('little hands' in English),

INAH team (need contact info from Holley's field notes) Helena Barba
Meinecke Gabriel - Eric - Kay -

CINDAQ team: Sam Meecham Fred Devos

UC Merced Holley Moyes

UC San Diego Dominique Rissolo Scott McAvoy

Description: Scanning with hovermap, handheld. This cave featured about 8 negative ochre handprints, and about 3 positive handprints. The cave was well kept as part of a tourist resort, and modern pathways built for tourists mixed seamlessly with an ancient staircase (we think) and several of the I shaped paseos we'd encountered in the other caves.

One paseo here was unique to the others in that it led into a small alcove, too small for a human, making it seem more viable as an animal trap than as a ritual space (Holley mentioned)

The cave had underwater sections, Eric dove for quite a while, Dominique will have to get this information.

The train was being built ON TOP of the cave, they had cleared another archaeological site right above the western side. Dominique captured a scan linking the train site to the cave, Sam got great drone footage showing the extent of the construction.

Scans: hovermap_lidar\Manitos3broll - hovermap_lidar\Manitos4broll -
hovermap_lidar\Manitos5 hovermap_lidar\Manitos1 - full cave scan , pretty

quick, not focused on nook and cranny detail. hovermap_lidar\Manitos2train - scan from outside, capturing dripline and walking up onto terrestrial site / train maya tramo cinco, D. Rissolo

Drone photography and video: By Sam Meacham and Fred Devos