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Field Reports

Title

Chichen Itza and Merida, Mexico February 6th-12th 2023

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Chichen Itza and Merida, Mexico

February 6th-12th 2023



Dominique and Sam on El Castillo, photo taken with aerial drone

prepared by Scott Mcavoy, smcavoy@ucsd.edu
2/14/2022

Project directed by Professor Falko Kuester & Dr. Dominique Rissolo
Cultural Heritage Engineering Initiative (CHEI) at the University of California San Diego

This document has been modified from the original to remove personal details

SLS = Artec Leo HD structured light scan, 300-500 micron resolution

HV = hovermap mobile lidar, emensent 3cm resolution

Drone = Arlette Herver with Mavic 3

Day 1 – Travel (2-5)

From Merida to Valladolid, dinner with INAH

Day 2 – at Chichen (Monday 2-6)

- 3 SLS pieces outside inah camp
- Started at Caracol
 - o SLS head ornaments
 - o SLS Serpent bannisters
 - o SLS interior staircase
 - o HV perimeter
 - o HV interior ground floor
 - o HV Rood
 - o Insta360 roof
 - o Drone Caracol – special attention to wheat monsters
- Mil columnas
 - o Many SLS scans noreste mil columns, various individual columns and fallen roof ornaments on the way to steam baths
 - o SLS restored platform mil columnas, with green, red, blue, yellow pigment of serpent scene
- SLS in Temple of Jaguares, half of the ceiling, and opposite half of ground. Captured pigment
- Drone Osario - Arlette
- Drone Castillo – Arlette special attention to masks (Travis wants to see if there are flowers on the headbands)



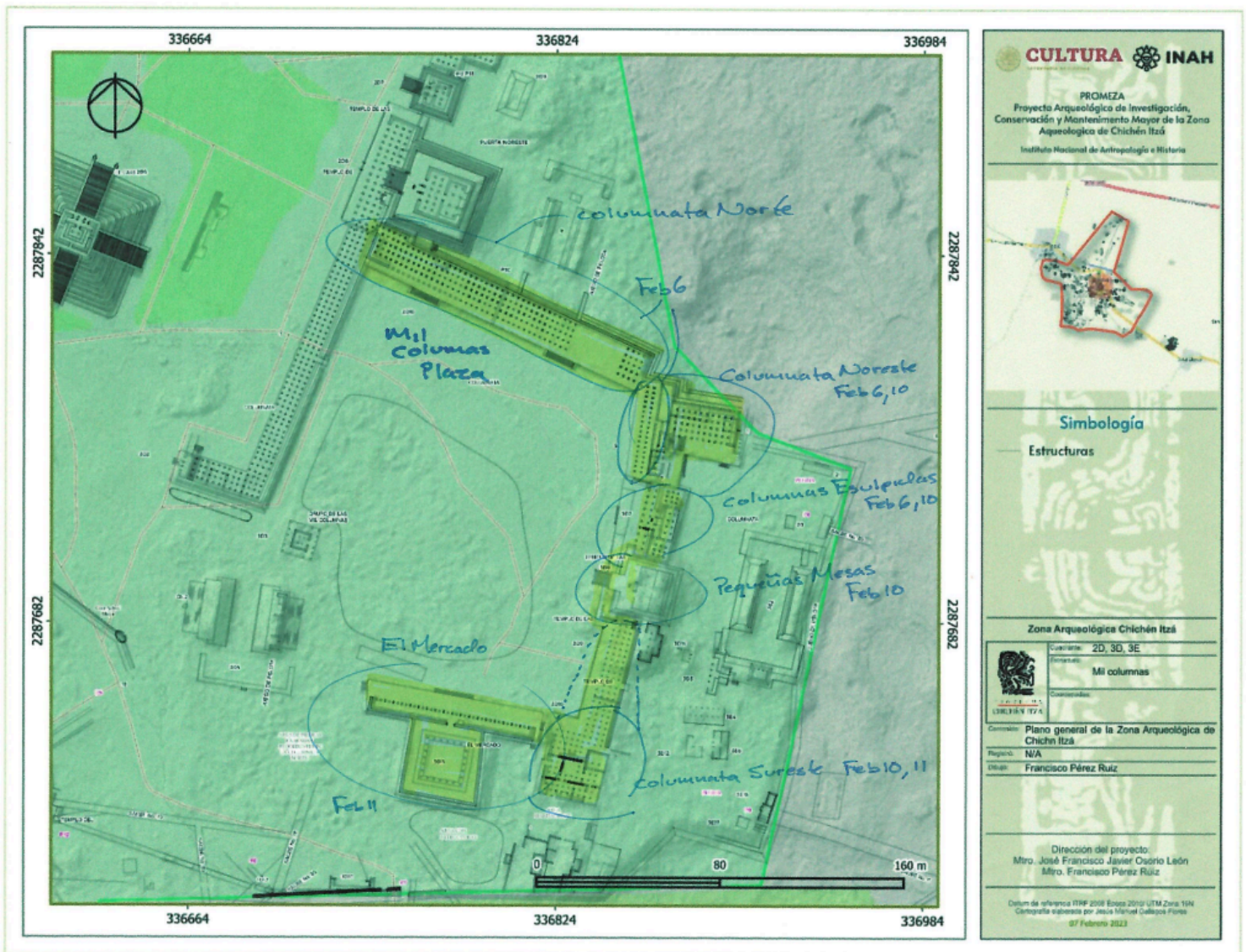
Day 3 – at Chichen (Tuesday 2/7)

- o Began at Sacred Cenote – where N.I. Marengo Camacho is excavating
- o SLS + SFM 3 large frog stones
- o SLS serpent head, protruding from ground
- o SLS platform above edge temple, with re-used carved stonework
- o HV temple, being excavated
- o SFM of temple structures
- o Data dump and lidar for INAH, logging activity
- o Alberto showed model of case de Colorado, planning to do SLS
- o Gave new lidar and Dom Meyer's 2018 sfm to Jesus M. Gallegos Flores, went through some models with Francisco Perez
- o Upper Temple of the jaguars
- o SLS of interior, paying special attention to murals, and wooden lintel, recently restored by Claudia's team
- o HV of temple outer entrance, and exterior context
- o Presentation to INAH, Travis presented flower mountain theory with iconographic evidence, Scott presented openheritage3d and potree visualization system.
- o Met Miguel Salazar, who was working on Satunsat and Oxkintok, modeling reconstructions in blender, doing viewshed !!! must send our data

- o Attended by Vera, bio-anthropologist from UADY, working with Nelda on projects involving human remains

Day 4 – at Chichen, then to Piste and to Merida (Wednesday 2/8)

- Met up with Claudia – went into several interior spaces
 - Arlette attempted sfm of sacred cenote, but the drone was swarmed by bees!
 - Temple of Grandes Mesas
 - o SLS Interior with two painted columns and lintel. There was a larger walled off space behind we did not access
 - Temple of the Warriors interior (attach map from Dominique)
 - o SLS 5 pillars, 2 unintelligible murals, two serpents heads and tails, one chacmool.
- Dominique made a map describing placement and naming conventions !!! insert below
- o HV interior and context
 - o !!! conservation issues related to steel reinforcement structures, Dominique recommends TLS scan for ceiling.



- Toured Marcos sculpture bodega, separate from INAH archaeological camp. Looking for Glyphs, especially related to caracol
- Travis spent time with Jesus going over the new Lidar – ???
- El Castillo



- o SLS of serpents head near north edge of plaza, Claudia wants to see if it fits the missing serpent at the top of Elcastillo
- o SLS interior throneroom, including chacmool, Jaguar stool, back wall with femurs protruding. Nelda and Ashuni Romero spent extra time measuring the bone features, and are interested in analyzing distance between them.
- o Dominique HV of entire throneroom and tunnel leading up!
- Casa Colorado
- o SLS of glyphs interior, at request of Alberto. Alberto has SFM to compare
- Meeting with Piste municipal president to discuss community museum exhibit, went well. building concepts to communicate that piste and chichen are one.
- Dinner with Ariana and Jose In Merida, talking about work in Palenque and ethnographic study of multigenerational restoration workers there.

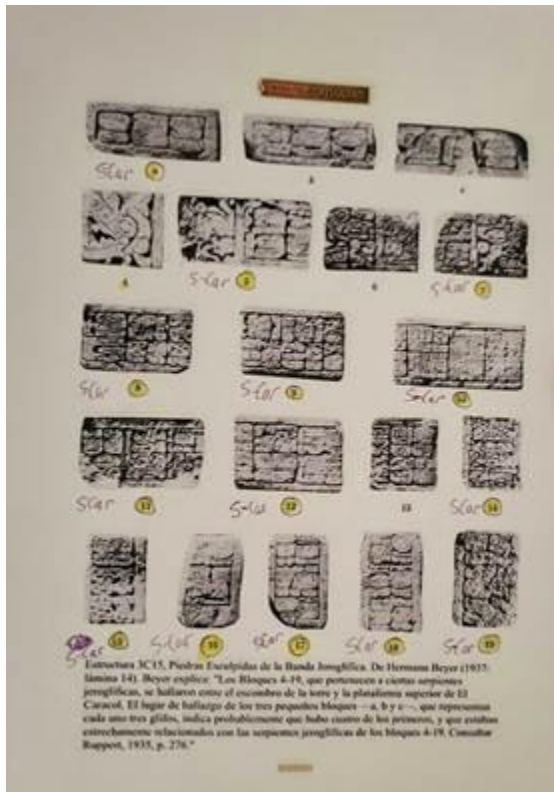
Day 5 – at Merida then back to Valladolid (Thursday 2/9)



- Started at Palacio Canton
 - o Met Landy – old friends with Travis
 - o SLS in Bodega, about 60 pieces paying special attention to all things Chichen
 - § Dominique maintained inventory, phone and field notebook
 - o Travis took hundreds of pictures of pottery samples and other artifacts
- Mundo Maya
 - o Met Danielo – director of operations, had worked with Travis
 - o Met Anna, Museum director, who was able to connect with Pepe and Poncho
 - o SLS artifacts (12) including:
 - § Oxkintok Ballcourt hoop
 - § Serpent head from ossario
 - § Glyphed stele from Caracol
 - § Did NOT get chacmool, as the glass piece it was propped on would not allow
 - § Note for Scott: Make sure to remove the fake jaguar sculpture duplicate from PC bodega
- Back to Valladolid, dinner at Irish pub with Pepe/Poncho/Nelda/Ashuni

Day 6 – Chichen (Friday 2/10)

- Drone – Sam and Dominique went up on El Castillo and flew 2cm resolution sfm drone scan of site connecting to sacred cenote (this had been missing in 2018 sfm data)
- SLS Tourist Center Bodega
 - o Roberto and Alejandro – working on re-organizing and re-cataloguing museum
 - o Unpacked very large stele pieces for us
 - o Scanned a number of glyphed pieces
 - o Scanned 5 pieces of large half-spherical ballcourt monument, will need to reassemble.
 - o Scanned all remaining pieces of serpent series, 2 glyphed items missing B & C (had been a very old Carnegie excavation)



- Decided to leave TC bodega at lunch, as we'd gotten all we could that was organized and known, leaving an atlantian figure documentation/comparison project for another time
- SLS Lintels for Claudia Garcia-Solis
 - o El Castillo – each lintel, on exterior but no doorway
 - o Monjas – 5 of 6 lintels on top, southernmost lintel was over precarious ledge
 - o Akab dzib – glyphed lintel on south side. Travis said that they'd missed this building in Dominique Rissolo's 2018 scan, and there was little documentation of it
- HV Dominique
 - o El Mercado
 - o Columnatas Escul
 - o Castillo upper temple interior and exterior

Day 7 – Chichen Itza – last working day (Saturday 2/11)



- Osario
 - o HV Gabriel and Kay from Helene's team came to map Osario undercroft, repelling down with Dominique 10 meters down one shaft, then sideways 8 meters, then repelling another 10m to get into cave. Precarious HV dangling experiment successful!
 - o SLS Ashuni southern serpent head, and easternmost central columns surrounding shaft (nearest stairway) the western columns were occluded by scaffolding, but should be in 2018 sfm data
- El Castillo – went up with Pepe and Sam
 - o SLS Scott and Ashuni Interior lintels and columns
 - o SLS doorways on exterior, including south-facing carvings with original pigment (wow!). We had failed to capture these on the previous day, only scanning lintels
- Akab Dzib
 - o Drone – Sam captures sfm of exterior
 - o HV Dominique walked full interior and exterior perimeter
- Monjas
 - o Drone – Same sfm facades on lower north complex
 - o SLS – Ashuni Captured northernmost lower lintel, highly decorated
- Mil Columns
 - o HV -Dominique knocked out remainder of the large undocumented columns sections (sureste?)

List of Collaborators and contact Info

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Francisco (Pancho) Perez	co-director	INAH Chichen	Contact info removed
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