



# MAPPING MESOAMERICA

CRACOW 2022

EUROPEAN ASSOCIATION OF MAYANISTS, WAYEB INSTITUTE OF ARCHAEOLOGY, JAGIELLONIAN UNIVERSITY POLISH SOCIETY FOR LATIN AMERICAN STUDIES

# 27th European Maya Conference

# "Mapping Mesoamerica"

November  $28^{th}$  – December  $3^{rd}$ , 2022

Cracow, Poland

CONFERENCE PROGRAMME BOOK OF ABSTRACTS

# Organizers

European Association of Mayanists, Wayeb Institute of Archaeology, Jagiellonian University Polish Society for Latin American Studies

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#### Welcome address

The 27th Annual European Maya Conference is co-organised by the European Association of Mayanists (Wayeb) together with the Jagiellonian University in Cracow. The conference will begin with an opening keynote talk on Monday November 28th, followed by three-day workshops, and concludes with a two-day symposium held from Friday December 2nd to Saturday December 3rd 2022 at the Jagiellonian University Conference Center "Auditorium Maximum."

The theme for the 27th European Maya Conference is Mapping Mesoamerica. The topic will be explored from a variety of perspectives and disciplines, taking into account the time-depth and cultural and geographic expanse of Mesoamerica. Among others, we would like to present the results of recent research focused on the mapping of the Maya area, and other parts of Mesoamerica, with a particular emphasis on LiDAR technology. LiDAR has revolutionized our perception of settlement patterns, demography, and the scale of landscape modification during Precolumbian times. LiDAR and other modern mapping techniques have facilitated higher-resolution documentation of ancient structures, roads, agricultural terraces, water reservoirs, etc. They have also helped uncover many natural features that were used by ancient communities (such as caves and cenotes). During this conference, we will attempt to answer questions concerning the nature of settlements in Mesoamerica, the scale of human interaction and its impact on the local environment. This conference will also address another important topic: how space and landscape were perceived and represented in the art and writing systems of inhabitants during the pre-Hispanic and Colonial periods. The theme of the conference will be approached from various disciplinary points of view – including archaeology, cartography, historical geography, toponymy, art history, epigraphy, and linguistics – as well as interdisciplinary perspectives exploring the intersection of these disciplinary approaches.

The main topic is broken down into the following subthemes:

- Modern mapping technologies (e.g., LiDAR)
- Perception of place and space by ancient Mesoamericans
- Maps in Colonial Mesoamerica
- Epigraphic and iconographic representations of landscape, place and space in pre-Hispanic and Colonial sources

# The organizing committee of the 27th European Maya Conference cordially welcomes you in Cracow!

The conference is funded by the Ministry of Science and Higher Education under the project no DNK/SN/550752/2022







Ministry of Science and Higher Education









# **Opening Ceremonies**

### Monday, November 28<sup>th</sup>, 2022

Venue: Auditorium Maximum of Jagiellonian University, 33 Krupnicza Street, Small Hall

- 14:30 16:00 Registration Venue: Auditorium Maximum JU, 33 Krupnicza Street, Hall
- 16:00 16:15 Welcome address by Wayeb President and Local Organisers
- 16:15 17:45 Keynote talk by John F. Chuchiak IV (Missouri State University) and Harri Kettunen (University of Helsinki)
  Mapping the mundo maya: The History of the Cartography of the Yucatan Peninsula

18:00 - 20:30 Welcome reception

# Workshops

# Tuesday – Thursday, November 29<sup>th</sup> – December 1<sup>st</sup>, 2022

#### Venue: Auditorium Maximum of Jagiellonian University, 33 Krupnicza Street, Exhibition room A and B, Seminar room

#### Tuesday, November 29th

8:30 – 9:30 Registration

Venue: Auditorium Maximum JU, 33 Krupnicza Street, Hall

- 9:30 13:00 Morning session
- 13:00 14:30 Lunch break
- 14:30-18:00 Afternoon session
- 19:00 20:00 Special talk by **Jarosław Źrałka** (Jagiellonian University) and **Victor Castillo** (Jagiellonian University) *The Murals of Chajul, Guatemala: Recent Investigations and Interpretations*

Venue: Auditorium Maximum JU, 33 Krupnicza Street, Exhibition Room A

#### Wednesday, November 30<sup>th</sup>

- 9:30 13:00 Morning session
- 13:00 14:30 Lunch break
- 14:30 18:00 Afternoon session
- 19:00 20:00 Special talk by **Christophe Helmke** (University of Copenhagen) Mesoamerican Cartography – Media, Concepts and Origins

Venue: Auditorium Maximum JU, 33 Krupnicza Street, Exhibition Room A

#### Thursday, December 1st

- 9:30 13:00 Morning session
- 13:00 14:30 Lunch break
- 14:30-17:00 Afternoon session
- 17:30 19:00 Wayeb General Assembly

Venue: Auditorium Maximum JU, 33 Krupnicza Street, Exhibition Room A

20:00 – 24:00 Symposium Opening Reception

Venue: Manggha Museum of Japanese Art and Technology, Entrance Hall, 26 Marii Konopnickiej Street

#### **BEGINNERS' WORKSHOP**

#### Searching for the Original Names of Classic Maya Cities: Toponyms in the Maya Writing System

Tutors: Dorota Bojkowska (Jagiellonian University) and Boguchwała Tuszyńska (Independent Scholar)

Venue: Auditorium Maximum JU, 33 Krupnicza Street, Exhibition Room A

#### INTERMEDIATE WORKSHOP

#### Mapping Maya Discourse: Geographic Information Systems in the Analysis of Classic Maya Texts and Imagery

Tutors: Felix Kupprat (Universidad Nacional Autónoma de México) and Verónica Amellali Vázquez López (Tulane University)

Venue: Auditorium Maximum JU, 33 Krupnicza Street, Exhibition Room B

#### SPECIAL WORKSHOP

#### Mapping the Maya Region: Explorations in the Sources on the Cartography and Cultural Geography of the Pre-Contact and Colonial Maya

Tutors: John F. Chuchiak IV (Missouri State University) and Harri Kettunen (University of Helsinki)

Venue: Auditorium Maximum JU, 33 Krupnicza Street, Seminar Room

# **Symposium**

### Cracow, December 2<sup>nd</sup>-3<sup>rd</sup>, 2022

Venue: Auditorium Maximum of Jagiellonian University, 33 Krupnicza Street, Medium Hall

#### Friday, December 2<sup>nd</sup>

8:00 – 9:00 Registration Venue: Auditorium Maximum JU, 33 Krupnicza Street, Hall

#### **First Session: Introduction**

- 9:00 9:30 Opening address: Jagiellonian University authorities (Dean of the Faculty of History), Miłosz Giersz (President of the Polish Society for Latin American Studies), Harri Kettunen (President of the European Association of Mayanists WAYEB)
- 9:30 10:30 Harri Kettunen (University of Helsinki), Panos Kratimenos (University College London), Jarosław Źrałka (Jagiellonian University), Dorota Bojkowska (Jagiellonian University) Mapping Mesoamerica: An Introduction to the Theme of This Year's EMC
- 10:30 11:00 Coffee break

#### Second Session: Archaeology I: LiDAR & other remote mapping techniques

- 11:00 11:30 **Takeshi Inomata** (University of Arizona) Maya Ethnogenesis Seen through High- and Low-resolution Lidar
- 11:30 12:00 Marcello A. Canuto (Tulane University), Luke Auld-Thomas (Tulane University) Beyond the Beautiful Site Map: Toward Large-scale Modeling of Lowland Maya Settlement Patterns
- 12:00 12:30 Thomas G. Garrison (University of Texas at Austin), J. Dennis Baldwin (University of Texas at Austin), Stephen Houston (Brown University), Rafael Cambranes (Universidad de San Carlos de Guatemala) Paths through the Palimpsest: Building Chronology from Lidar-based Survey in the Buenavista Valley, Guatemala
- 12:30 13:00 Milan Kováč (Comenius University of Bratislava), Marek Bundzel (Comenius University of Bratislava), Tibor Lieskovský (Comenius University of Bratislava), Jakub Špoták (Comenius University of Bratislava), Lucia Chvaštulová (Comenius University of Bratislava)
  Automated Creation of Maps of Maya Cities Using Neural Networks Based on LiDAR Data
- 13:00 14:30 Lunch break

#### Third Session: Archaeology II: LiDAR & Settlement patterns

- 14:30 15:00 Felix A. Kupprat (Universidad Nacional Autónoma de México), Kathryn Reese-Taylor (University of Calgary), F. C. Atasta Flores Esquivel (Universidad Nacional Autónoma de México), Armando Anaya Hernández (Universidad Autónoma de Campeche), Nicholas P. Dunning (University of Cincinnati), Debra S. Walker (University of Florida), Verónica A. Vázquez López (Tulane University), Adriana Velázquez Morlet (Instituto Nacional de Antropología e Historia) Settlement patterns in the Bajo Laberinto region in a multiscalar and diachronic perspective
- 15:00 15:30 **Paul Graf** (University of Bonn) *The Maya under the Surface: An Integrated Approach for the Detection of Invisible Settlements in the Peripheries of Tamarindito and Tzikin Tzakan in Petén, Guatemala*
- 15:30 16:00 Eva Jobbová (Trinity College Dublin), Christophe Helmke (University of Copenhagen) Directional Patterns and Planning in Urban and Rural Spaces in Central Lowland Maya Settlement
- 16:00 16:30 Coffee break
- 16:30 17:00 Daniel Prusaczyk (University of Warsaw), Karolina Juszczyk (University of Warsaw)
  In Pursuit of Water: Mapping of Pre-Hispanic Aqueducts in the Acolhua Region

17:00 – 17:30 **Carolina Collaro** (University of Jaén) A Case Study of Lidar Survey by Drone in the Archaeological Maya Landscape of Guatemala

17:30 – 18:00 Francisco Estrada-Belli (Tulane University), Alexandre Tokovinine (University of Alabama)
 On the Path of the Kaanu'l Dynasty in Northeastern Peten: Recent Investigations at Chochkitam
 (NB: remotely)

### Saturday, December 3<sup>rd</sup>

#### Fourth Session: Space and Place in the mundo maya and beyond

- 9:00 9:30 **Jan Szymański** (University of Warsaw), **Joachim Martecki** (University of Warsaw) No Lines to Cross: Space and Identity in Mesoamerican and Central American Studies
- 9:30 10:00 **Przemysław Adrian Trześniowski** (independent researcher) Corridors of Xibalba – Mapping of Inundated Caves of Yucatan Peninsula

- 10:00 10:30 **Michael Pittman** (The Chinese University of Hong Kong), **Thomas G. Kaye** (Foundation of Scientific Advancement, Sierra Vista, Arizona), **Elizabeth Graham** (Institute of Archaeology, UCL) *Laser-Stimulated Fluorescence Imaging Investigating of Monuments and Artefacts from Lamanai, Northern Belize*
- 10:30 11:00 Coffee break
- 11:00 11:30 Gaia Carosi (University of Bonn) Mapping Late Postclassic Tabasco: Preliminary Results of the TopoMSL Project
- 11:30 12:00 Maria Felicia Rega (Sapienza University of Rome and Comenius University of Bratislava)
  Take Me Out to the Ballgame: Reconstructing Regional Borders Through Ballcourts Distribution in Peten, Guatemala
- 12:00 12:30 **Daniel Salazar Lama** (Université Paris 1 Panthéon-Sorbonne), **Benjamín** Esqueda Lazo de la Vega (Universidad Autónoma de Yucatán) Reconstruyendo el espacio del mito en la Subestructura II C de Calakmul, Campeche, México
- 12:30 14:00 Lunch break

#### Fifth Session: Colonial & Contemporary Mesoamerica

- 14:00 14:30 John F. Chuchiak IV (Missouri State University) "The Hills are of Live Rock, Dry and Waterless": Early Cartographic Encounters of Spanish Explorers and Conquistadors with the terrain of the Yucatan Peninsula, 1511-1600
- 14:30 15:00 Victor Castillo (Jagiellonian University) Mapping Zaculeu: An Overview of the Historical Cartography of the Maya Highlands of Guatemala
- 15:00 15:30 **Margarita Cossich** (Universidad Nacional Autónoma de México) *Tlaxcaltecas y quauhquecholtecas mapeando la Guatemala del siglo XVI* (NB: remotely)
- 15:30 16:00 Coffee Break
- 16:00 16:30 Rogelio Valencia Rivera (independent researcher) Throwing Arrows and Stones: Domestic Space Demarcation and Appropriation in Colonial New Spain (NB: remotely)
- 16:30 17:00 **Enrico Straffi** (Escuela Nacional de Antropología e Historia (ENAH), Mexico) *Mapeando el quincunce en área maya: propuesta teórico-practica* (NB: remotely)
- 17:00 17:30 **Monika Banach** (Jagiellonian University) Mapping Sacred Landscape in the Ixil Region of Guatemala

### 17:30 – 18:00 Feliciana Herrera Sit Po'p (Pueblo Ixil de Nebaj) Cosmovisión e identidad del Pueblo Ixil desde la Cartografía

- 18:00 18:30 Closing address and flag ceremony
- 19:00 22:00 Farewell reception Venue: "U Pęcherza" cafeteria, Collegium Maius, 15 Jagiellońska Street

KEYNOTE AND SPECIAL TALKS ABSTRACTS

#### **Keynote Talk**

 16:15 – 17:45 John F. Chuchiak IV (Missouri State University), Harri Kettunen (University of Helsinki) Mapping the mundo maya: The History of the Cartography of the Yucatan Peninsula

This opening presentation of the European Maya Conference will examine the cartography of the Yucatan Peninsula from the earliest maps to the latest, concentrating on the early history of the cartography of the area. We will explore the role of cartographic charts and images included in, e.g., Landa's *Relación de las Cosas de Yucatan* and how they advanced the geographic knowledge of the Yucatan Peninsula in the official circles of 16th century Spanish cartography. These maps played a major role in demarcating the first imperial royal maps of Spain's New World possessions and the elaboration of the formal official *General Histories of the Indies*. Besides these early maps, we will also explore the development of later maps in the area to illustrate the way in which these reflect the historical realities and politics in the *mundo maya*.

### Tuesday, November 29th, 2022

#### Special Talk I

19:00 - 20:00

Jarosław Źrałka (Jagiellonian University) and Victor Castillo (Jagiellonian University) The murals of Chajul, Guatemala: Recent Investigations and Interpretations

Chajul is a town located in El Quiche Department of Guatemala inhabited by the Ixil Maya. Chajul features prominently on the map of Mesoamerica as a place where unique wall paintings were discovered in private properties. The murals represent an important example of Indigenous art of the colonial period in the Americas related to the so-called *cofradías* (religious brotherhoods) established during the Spanish rule. Since 2018 a team of Polish, Guatemalan and Spanish scholars have been documenting and studying the murals at several houses in Chajul. Our works involved 3D documentation, conservation works, archaeological excavations, physicochemical analyses of pigments, as well as anthropological and historical studies. In this paper we present results from the latest field works conducted in the Ixil Region, as well as recent interpretations on the murals, which constitute an important cultural and artistic heritage of Latin America.

Wednesday, November 30th, 2022

#### Special Talk II

19:00 – 20:00 Christophe Helmke (University of Copenhagen) Mesoamerican Cartography — Media, Concepts and Origins

> The cartographic tradition of Mesoamerica is amply attested in the documents produced in the 16th and early 17th centuries—in the wake of the Spanish conquest. Media and supporting materials serve to create the dichotomy between mapas (produced on sheets of paper) and lienzos (rendered on large sheets of textiles). Despite the differences in media and physical scale, the thematic content and format are generally one and the same, although some variation exists, often blending geographic references and historic events in the same space. Whereas most attestations of Mesoamerican cartography can de dated to the first few decades following the Spanish conquest, this tradition is of much greater antiquity. In fact, its gestation is now well-documented among the Epiclassic cultures of Central Mexico (c. AD 650-1000), and key features and traits can be traced even further back, to the rich representational conventions of the Classic metropolis: Teotihuacan (c. AD 200-650). In this presentation, the main characteristics and features of mapas will be presented, competing interpretations of what these sources represent in structural and narrative terms are discussed, all the while illustrating a wide variety of mapas and lienzos, before delving back to their Precolumbian origins, showing the evolution and progression of this lengthy tradition.

WORKSHOP ABSTRACTS

#### **BEGINNERS' WORKSHOP**

#### Searching for the Original Names of Classic Maya Cities: Toponyms in the Maya Writing System

Tutors: **Dorota Bojkowska** (Jagiellonian University) and **Boguchwała Tuszyńska** (Independent Scholar)

The Beginners' Workshop is intended for participants who have never worked on Maya glyphs or have only a limited knowledge of the Maya writing system. However, everyone interested in the topic of place names is welcome. Participants will be provided with basic information on the Maya writing system, calendar, and linguistics. This workshop will focus on the toponyms recorded in glyphic inscriptions from different polities within the Maya Lowlands. The word 'toponym' is derived from Greek and refers to place names, especially those originated from topographical features. This also applies to Maya place names, which are very often based on particular landscape features such as mountains, stones or bodies of water. Working on specific glyphic texts, attendees will become more familiar not only with the Maya writing system but also with the beauty and creativity of Maya place names and their connection to the surrounding landscape.

The workshop will be conducted in English but, on an individual basis, explanations can be also provided in Polish and Spanish.

#### **INTERMEDIATE WORKSHOP**

#### Mapping Maya Discourse: Geographic Information Systems in the Analysis of Classic Maya Texts and Imagery

Tutors: Felix Kupprat (Universidad Nacional Autónoma de México) and Verónica Amellali Vázquez López (Tulane University)

The Maya area was, and remains, a culturally complex and heterogeneous region. As such, an everincreasing number of studies have focused on its inner and outer sociocultural boundaries. Innovations in mapping and spatial distribution analyses have proven to be powerful tools for reconstructing such limits, including political, cultural or identitary distinctions revealed by textual traits and graphic motifs. In this workshop, we will analyse several datasets comprised of Classic Maya texts and imagery by the means of Geographic Information Systems (GIS) to address questions about political and cultural spheres within discrete time periods. The workshop includes a practical introduction to GIS, examples of spatial distribution analysis in Maya epigraphy and iconography and extensive hands-on exercises in which participants work on dynamically defined sets of glyphic texts and imagery, extracting relevant information and processing it with the open-source software package QGIS.

Participants should at least have a basic understanding of Maya epigraphy and iconography, but no prior knowledge of GIS is required. We provide some sets of glyphic texts and images for predefined exercises, with a focus on the polities of the Central Maya Lowlands, but in the case that participants have particular interests or ongoing research projects that could potentially incorporate spatial analyses, they are encouraged to bring their own materials in digital form. It would be greatly beneficial if participants had a laptop with the latest version of QGIS installed (available for Linux, macOS and Windows on https://qgis.org) and at least 5 GB of available internal or external storage. Additional data will be available for download shortly before the workshop and can also be distributed on-site via USB flash drives (bring a USB-A adapter if you need one!).

#### SPECIAL WORKSHOP

#### Mapping the Maya Region: Explorations in the Sources on the Cartography and Cultural Geography of the Pre-Contact and Colonial Maya

Tutors: John F. Chuchiak IV (Missouri State University) and Harri Kettunen (University of Helsinki)

This workshop explores, through an interdisciplinary approach, the main theme of this conference for the pre-contact and colonial periods in the Maya region. The workshop will include introductory lectures on the topic of the cartography and toponomastics of the Maya region from an interdisciplinary perspective. By analyzing the epigraphic, cartographic, ethnohistorical, and historical evidence, this workshop will introduce participants to the historical context, and primary sources related to, the development of the cartography and mapping of the cultural and physical geography of the greater Maya region of Yucatan, Chiapas, Guatemala, Belize, and Honduras. For comparative purposes, we will also briefly explore the greater Mesoamerican cultural sphere, particularly in relation to the study of place names (toponomastics).

In hands-on sessions, participants will analyze and work with a selection of hieroglyphic texts and English translations of important colonial sources for the mapping and cartographic history of the Maya region. Other sources to be examined include cartographic imagery and associated maps, as well as other primary eye-witness accounts of the early geographic encounters between Europeans colonizers and the Maya. Moreover, individually and/or in groups, these materials will serve as the basis for final presentations on selected aspects of the cartography or cultural geography of the Maya region. These will focus on researching important aspects of the geography and cartography of the Maya region (mapping, early explorations and encounters), or on specific aspects of the geography of the Maya region (such as a detailed study of the mountains, rivers, cenotes, caves, natural environment, etc).

Although no prior knowledge of Maya hieroglyphic writing or colonial sources is essential, a general knowledge of Spanish would be beneficial.

SYMPOSIUM ABSTRACTS

#### **First Session: Introduction**

9:30 – 10:30
 Harri Kettunen (University of Helsinki), Panos Kratimenos (University College London), Jarosław Źrałka (Jagiellonian University), Dorota Bojkowska (Jagiellonian University)
 Mapping Mesoamerica: An Introduction to the Theme of This Year's EMC

The opening talk of the symposium introduces the theme of this year's conference, discussing the long history of cartography in Mesoamerica from Precolumbian precursors up to the very latest developments in digital mapping. We will also discuss how landscape, place, and space were represented in art and writing systems during the pre-Hispanic and Colonial periods and how later maps reflect the history and politics of the area. Moreover, some critical reflections on archaeological mapping practice will be presented. Specifically, the ways in which large-scale mapping in archaeology and associated disciplines would benefit from closer engagement with developments in the discipline of Critical Cartography will be discussed. Furthermore, we will provide a background to the remote sensing technology used in the Maya area, from the first flights above the Yucatan Peninsula and the applications of aerial photography to the introduction of LiDAR technology in the Maya Lowlands. Recent research applying this technology in Mesoamerica has demonstrated its great potential and broadened our knowledge about settlement patterns, socio-political processes, and the scale of modification of the natural environment by Precolumbian societies. We will illustrate how LiDAR has changed our perception of the ancient Maya civilization and how studies on peripheral or intersite areas have advanced during the last few decades.

#### Second Session: Archaeology I: LiDAR & other remote mapping techniques

11:00 - 11:30

**Takeshi Inomata** (University of Arizona)Maya Ethnogenesis Seen through High- and Low-resolution Lidar

Our study combined high-resolution lidar of a 1,000 km2 area (0.5 m horizontal resolution by the NCALM) and low-resolution one of an 85,000 km2 area (5 m horizontal resolution by the Instituto Nacional de Estadística y Geografía-INEGI), covering the Mexican state of Tabasco and parts of Chiapas, Campeche, Veracruz, and Oaxaca. These data allowed us to examine the detailed configurations of individual sites and changes in their distribution through time. During the Early and Middle Preclasic periods, large ceremonial complexes related to San Lorenzo and Aguada Fénix spread across a broad area including the Gulf Olmec region and the western Maya lowlands. During the Late Preclassic and Classic periods, this system broke up into two spheres, one in Veracruz and the other in the Maya lowlands. Each region contained areas of high population density supported by wetland fields and other intensive agricultural systems. This process reflects the formation of distinct cultural spheres in the Maya area and Veracruz.

# 11:30 – 12:00 Marcello A. Canuto (Tulane University), Luke Auld-Thomas (Tulane University)

Beyond the Beautiful Site Map: Toward Large-scale Modeling of Lowland Maya Settlement Patterns Despite Maya archaeology's abiding interest in settlement patterns, the tropical forest has imposed logistical and methodological constraints that have steered researchers toward community-scale analyses. Ambitious efforts to expand the scale of local models via remote sensing have been repeatedly frustrated by the regionalism and heterogeneity of the Maya Forest. The application of airborne laser scanning (lidar) as a direct-discovery tool capable of mapping vast areas in precise detail has returned promise to the discipline's macro-scale ambitions. By simultaneously recording topography, archaeological settlement, anthropogenic landscape modification, and vegetation, lidar offers new ways to model Maya settlement patterns at previously unattainable scales. Here, we use lidar-derived settlement and topographic data from the Corona-Achiotal region of northwestern Guatemala to develop a settlement suitability model that reveals patterns in the distribution of archaeological remains visà-vis landforms. This model identifies constraints on settlement patterning and historical contingencies in the growth of individual cities. However, it offers something much more far-reaching: by integrating this model's topographic insights with moderate-resolution data drawn from spaceborne optical and radar sensors, we show how it is possible to model archaeological settlement at even more ambitious scales—ironically, only in the places where the Maya Forest remains intact.

12:00 – 12:30 **Thomas G. Garrison** (University of Texas at Austin), **J. Dennis Baldwin** (University of Texas at Austin), **Stephen Houston** (Brown University), **Rafael Cambranes** (Universidad de San Carlos de Guatemala) *Paths through the Palimpsest: Building Chronology from Lidar-based Survey in the Buenavista Valley, Guatemala* 

> The Buenavista Valley, located in the Biotopo San Miguel La Palotada-El Zotz, has been the subject of fifteen years of archaeological investigation by the El Zotz Archaeological Project (PAEZ). In 2016 and 2019, PAEZ received multispectral lidar of this area through the Pacunam Lidar Initiative. For five seasons, members of PAEZ led survey teams into the biotope to verify structures and associated features observed in lidar. The teams collected datable ceramic material from looter's trenches, surfaces scatters, and test pits, revealing dates for over 150 discrete settlement groups and overall trends that shaped the land. Our findings show that this area, its eastern limit adjacent to Tikal, was a heavily contested corridor during the Preclassic and Early Classic periods. A clear increase in internecine conflict, signaled by the construction of hill forts, helped to explain population shifts from the valley floor to elevated areas on the northern escarpment of the Buena Vista Valley. Arising in part from tensions during the celebrated "Entrada" of Teotihuacan, this evidence exemplifies societal responses to conflict in Mesoamerica. More broadly, lidar with ground survey offers potent documentation of how complex landscapes shifted over time.

 12:30 – 13:00
 Milan Kováč (Comenius University of Bratislava), Marek Bundzel (Comenius University of Bratislava), Tibor Lieskovský (Comenius University of Bratislava), Jakub Špoták (Comenius University of Bratislava), Lucia Chvaštulová (Comenius University of Bratislava)
 Automated Creation of Maps of Maya Cities Using Neural Networks Based on LiDAR Data

Since 2020, the Slovak Archaeological Project in Guatemala (PARU) has introduced tools from the field of artificial intelligence into the research practice related to the processing of LiDAR data and the creation of new maps. It is primarily predictive modeling that uses algorithms from already existing and interpreted sections of

LiDAR-based maps with typical architectural features around Uaxactun. Our goal is to facilitate the process of labeling the objects in various LiDAR scans using Convolutional Neural Networks (CNN). In our current experiment, we implemented a semantic segmentation model to detect Maya buildings from the area of the new huge site (25 km north of Uaxactun) based on new LiDAR scans. The verification area of the predicted model was approximately 1.5 x1.2 km large, covered the center of the unmapped ancient Maya city, and was located outside the LiDAR scan that was used to train and validate our CNN model. During the field verification in November 2021, we visited in person and annotated nearly 400 objects in the area, mainly buildings and other objects of construction activity. The CNN model performed very well with regard to the detections. We, therefore, consider the mentioned method to be promising. Our results indicate that it can replace the manual work of an entire team of experts in a very short time and also has the potential to be further developed to create complex 3D reconstructions of Maya cities.

#### Third Session: Archaeology II: LiDAR & Settlement patterns

14:30 – 15:00
 Felix A. Kupprat (Universidad Nacional Autónoma de México), Kathryn Reese-Taylor (University of Calgary), F. C. Atasta Flores Esquivel (Universidad Nacional Autónoma de México), Armando Anaya Hernández (Universidad Autónoma de Campeche), Nicholas P. Dunning (University of Cincinnati), Debra S. Walker (University of Florida), Verónica A. Vázquez López (Tulane University), Adriana Velázquez Morlet (Instituto Nacional de Antropología e Historia)

Settlement patterns in the Bajo Laberinto region in a multiscalar and diachronic perspective

The large seasonal wetland known as Bajo Laberinto, an important landmark in southern Campeche, Mexico, is surrounded by dense Prehispanic settlement. Some of the sites on the edge of the Bajo Laberinto, particularly Calakmul and Yaxnohcah, have long occupational histories reaching back to the Middle Preclassic period. However, the population density in the whole area seems to have peaked in the Late Classic period (550-900 CE). In this paper, we contrast settlement patterns in the area surrounding the Bajo Laberinto based on two lidar surveys along the northern rim, spanning the sites of Calakmul-El Laberinto, and on the southern rim, from Yaxnohcah-Pared de los Reyes. We augment our spatial analysis of the lidar with recent data derived from survey and excavations at Calakmul and Yaxnohcah. Both Yaxnohcah and Calakmul show clear evidence of Preclassic site planning and monumentality, including E-Groups, triadic compounds, and temple structures arranged in patterns of a large-scale isosceles triangles. However, the nodal site layout observed in Yaxnohcah is not overtly evident at Calakmul. Preclassic monumentality at Calakmul seems to have been heavily modified and incorporated into Classic period groups, peaking in the formation of large, dense, and complex multi-courtyard compounds in the Late Classic. In sum, our preliminary observations indicate that while Preclassic communities were clearly organized on a micro-regional scale, the Classic period saw socio-economic integration and reconfiguration on a much larger scale dominated by Calakmul.

#### 15:00 – 15:30 **Paul Graf** (University of Bonn)

The Maya under the Surface: An Integrated Approach for the Detection of Invisible Settlements in the Peripheries of Tamarindito and Tzikin Tzakan in Petén, Guatemala

Since the first considerations by Bullard in the 1960s, the issue of invisible settlements has become a major area of discussion in Maya archaeology. The systematic efforts by Kevin Johnston in the 90s and early 2000s demonstrated that the invisible settlement problem really exists and that around one third of a Maya site tends to be unseen during ground surveys. In particular in the so-called peripheries, or outskirts of monumental centers, there are many archaeological remains which are difficult to detect because they are hidden by vegetation, partially covered by soils or entirely buried. Unfortunately, these rural areas were the major residential zones of Maya commoners or non-Elites, which are also not reflected in the written sources. Many of these structures are even undetectable by LiDAR technologies, since they are buried or covered by dense brush vegetation impossible to be penetrated by laser beams. On the other hand, random excavations can only reveal a small and ultimately hardly representative area. However, there are different remote sensing methods which can look under the surface. They are non-invasive and, unlike extended excavations and LiDAR, cheap methods, which allow the investigation of whole settlement clusters. For my own research on the ancient communities in the peripheries of Tzikin Tzakan and Tamarindito, I recently applied an integrated multidimensional approach, including geophysical surveys with an electromagnetic induction meter, aerial photography from drones and multispectral satellite imagery. This made it possible to identify different types of features and obtain a complete picture of the archaeological landscape.

#### 15:30 - 16:00

**Eva Jobbová** (Trinity College Dublin), **Christophe Helmke** (University of Copenhagen)

Directional Patterns and Planning in Urban and Rural Spaces in Central Lowland Maya Settlement

Maya archaeology exhibits a curious combination of obsession and disinterest when it comes to the study of directional patterns in the built landscape. On the one hand, there is an established, if often hotly debated, literature on the alignments of Maya monumental buildings and what they might mean in terms of changing political fortunes, religious priorities or astronomical knowledge (Aveni, 2001; Aveni et al., 2003; Spraic, 2008). On the other hand, the wider landscape beyond the monumental epicentres of Maya sites is traditionally seen as a dispersed free-for-all, in which both field systems and non-elite habitations are scattered in a regionally variable and, in comparison to monumental epicentres, far less formal way (Ashmore, 1981). Despite this, many studies have considered the relative spacing of Maya settlement as an important piece of empirical evidence for the nature of small-scale agricultural strategies and higher-order political organisation (Becker, 2001; Garber et al., 1993; Helmke and Awe, 2008a, 2013; Dunning, 2004; Hutson et al., 2004, 2007; Lohse, 2004; Mathews, 1991; Yaeger and Robin, 2004). Furthermore, an increasing number of studies of rural settlement and spatial organisation have also begun to question the traditional dichotomy that distinguishes Maya urban from rural spaces (Iannone and Connell, 2003; Manaham and Canuto, 2009; Marken, 2011). Using the unusually wellexplored major site of Baking Pot in west-central Belize, as a case study, this paper builds upon this wider sense of the regional variability and more mixed urban and rural characteristics exhibited by Maya settlements, and further questions the assumption that it is only the monumental core of a site that shows any degree of formal spatial alignment. Furthermore, through the observed spacing, grouping and alignment of mounds it also explores what these might say about the nature of houseplots in the central Maya lowlands and more broadly what they might imply for the nature of Maya urbanism. Finally, with the increased use of Lidar and new opportunities to explore Maya settlements on much larger scale, this paper attempts to perhaps reopen discussion and further research on level of official planning in both Maya urban and rural spaces.

# 16:30 – 17:00Daniel Prusaczyk (University of Warsaw), Karolina Juszczyk (University of Warsaw)

In Pursuit of Water: Mapping of Pre-Hispanic Aqueducts in the Acolhua Region

Water played a central role in the life of the ancient Mesoamerican people. Over the centuries of cultural development in the Valley of Mexico, different communities developed various strategies for obtaining and controlling water. One of the most remarkable water distribution systems was created in the eastern part of Lake Tetzcoco, within the Acolhua Domain, where an extensive system of aqueducts, canals, and reservoirs was created, now known only from residual historical records. So far, the only remains of this complex have been located around Tetzcotzinco, a place that was the regional center of cult and control of the water. This place became a base for our research on indigenous water management techniques, which enabled the attempt to reconstruct the regional system of aqueducts.

This paper aims to present the results of water management system documentation at Tetzcotzinco and its hydrological analyzes, which provided a detailed understanding of its functioning. Based on these results and the effects of analyzes in the field of landscape archeology and historical studies of indigenous and colonial maps and written sources, we were able to reconstruct large-distance aqueducts throughout the region, especially those that connected Tetzcotzinco with natural water sources on the slopes of the sacred mountain, Tlalocatepetl. The presented research is the first step not only to a better understanding of the importance of water and its distribution in the Acolhua region but also could expand our knowledge about the indigenous perception of water and the environment and their relation with the landscape.

17:00 - 17:30

#### Carolina Collaro (University of Jaén)

A Case Study of Lidar Survey by Drone in the Archaeological Maya Landscape of Guatemala

In April 2022, two Universities, the University of Jaén in Spain and the University of San Carlos de Guatemala, conducted a survey in the tropical forest of El Peten, Guatemala, in the National Park of Yaxhà Nakum Naranjo, with the collaboration of a German Company of Munich, for the BVTOL drones furniture and pilot expertise. The presentation will illustrate the first achievements of the expedition, which planned to detect new ancient settlements of archaeological importance in a Park of 38.000 Ha, which was almost inaccessible, and eventually validate the results already achieved by other archaeologists even without using Lidar. The Lidar importance in a tropical environment where the vegetation covers the pyramids will be highlighted, as also the need for data interpretation. The challenge posed by the Lidar technology confirms the importance of working at an interdisciplinary level to look at the landscape at a spatial scale and not only at a temporal one. The spatial scale links big monumental pyramids

with small settlements covered by earth and tropical vegetation to a unicum landscape as a palimpsest. It is possible to make new hypotheses on the ancient site's organization and the population number and to produce digital twins of the pyramids for virtual restoration in a remote network for scientific collaboration. The high resolution of the data could also efficiently produce virtual 3D models for tourism fruition on a local and global scale.

17:30 – 18:00 **Francisco Estrada-Belli** (Tulane University), **Alexandre Tokovinine** (University of Alabama) On the Path of the Kaanu'l Dynasty in Northeastern Peten: Recent Investigations at Chochkitam (NB: remotely)

Two of the Kaanu'l dynasty's strongest allies in the south during the sixth and seventh centuries were the kingdoms today referred to as Naranjo, in eastern Peten and Caracol, in western Belize. Since the discovery of Dzibanché's hieroglyphic stairway it has also been evident that the Kaanu'l hegemony began with conquests and territorial expansion out of the city of Dzibanché, in southern Quintana Roo culminating with the defeat of Tikal in 562, although the locations and modalities of their initial expansion to the south remained unclear. After the discovery of references to the Kaanu'l dynasty at Holmul in 2013, and the elaboration of a least-cost route from Dzibanche to Tikal, the hypothesis was formulated that references Kaanu'l kings may be found at sites along the way. Recent work at Chochkitam, in northeastern Peten, uncovered royal texts and tombs with titles identifying a previously unknown dynasty and Early Classic references to the Kaanu'l supporting the initial hypothesis regarding the possible Kaanu'l progression along the eastern Peten front during the early part of the sixth century, as well as the true identity of the architect of the Tikal defeat.

### Saturday, December 3<sup>rd</sup>

#### Fourth Session: Space and Place in the mundo maya and beyond

9:00 – 9:30 Jan Szymański (University of Warsaw), Joachim Martecki (University of Warsaw) No Lines to Cross: Space and Identity in Mesoamerican and Central American Studies

Boundaries that define large study areas, such as Mesoamerica, or Isthmo-Colombian Area, are products of a Cartesian, absolute perception of space. The extent to which we can rely on them to reflect ancient divisions of space, and, by extension, ancient identities, demands a new set of revisions.

We will explore alternative approaches to studying relations between space and identity, and identities across spaces, focusing on the area of convergence between Mesoamerica and Central America.

9:30 – 10:00 **Przemysław Adrian Trześniowski** (independent researcher) Corridors of Xibalba – Mapping of Inundated Caves of Yucatan Peninsula

> The significance of caves as portals to the Maya underworld has been known for years. Their representations in the iconography of the Classic and Preclassic periods depict

the Maya underworld as being flooded with water. Research has identified evidences of ceremonies performed in the caves and modifications to the cave environment in relation to the rituals. Elements of cave architecture found their way in the opposite direction: stalactites were used as a kind of foundation stone in temples and on home altars, tuff from cenotes was used to build shrines. Ideas may also have migrated from caves, finding their reflection in Maya architecture: chultunób resembling cenotes, the zoomorphic portals resembling karst formations...

On the Riviera Maya, in the north-eastern part of the Yucatán Peninsula extend the longest inundated cave systems on Earth (among the ten longest on the planet, nine are here). These caves have been explored since the 1970s. Cave exploration has so far recorded more than 1,500 km of total passage length, but the horizon of human cognition continues to move further. Each day brings new discoveries, including archaeological and palaeobiological ones. The mapping of inundated caves is still based on the simplest tools, such as a line, a depth gauge, a compass and a notepad but the data are then processed by software to create a skeletal network. On the basis of such a stickmap, again in the field, is the appropriate map drawn. Underwater cave cartography is evolving each year, resulting in ever more perfect works.

Michael Pittman (The Chinese University of Hong Kong), Thomas G. Kave (Foundation of Scientific Advancement, Sierra Vista, Arizona), Elizabeth **Graham** (Institute of Archaeology, UCL)

Laser-Stimulated Fluorescence Imaging Investigating of Monuments and Artefacts from Lamanai, Northern Belize

Lamanai was a major Maya city located in what is now northern Belize. Its long occupation spanning around 3000 years stands out from many sites of the southern Maya lowlands that were abandoned much earlier. Laser-Stimulated Fluorescence (LSF) is a novel imaging technique that was recently introduced to archaeology and has been shown to clarify preserved details and reveals information that was originally invisible to the naked eye. Using LSF, we imaged a range of monuments and artefacts, including temple buildings, stelae, altars and pottery. In making these targets 'glow in the dark', LSF provided a geochemical target map revealing unique information across the spatial scales studied. We also made comparisons with traditional and augmented white light imaging techniques, including raking light. We make recommendations for the use of LSF in the study of Maya archaeology, particularly for the study of large targets such as stelae and buildings.

#### 11:00 - 11:30Gaia Carosi (University of Bonn) Mapping Late Postclassic Tabasco: Preliminary Results of the TopoMSL Project

At the time of the conquest, Tabasco was a quite populated land, characterized by a variated natural and anthropic landscape. The conquest itself was a moment of great transformation in settlement, with many sites disappearing, others being relocated by the congregación and networks changing depending mostly on the different political system installed.

TopoMSL project maps at a low and medium scale the locations of the various colonial pueblos and tries to give a clear framework of the settlement pattern and communication networks, taking its first steps from the analysis of the map of Tabasco contained in the Relaciones Histórico-Geográficas de Yucatán y Tabasco. Here the author wants to share the first, preliminary results.

10:00 - 10:30

# 11:30 – 12:00Maria Felicia Rega (Sapienza University of Rome and Comenius University<br/>of Bratislava)<br/>Take Me Out to the Ballgame: Reconstructing Regional Borders Through<br/>Ballcourts Distribution in Peten, Guatemala

Several studies on the Maya ballgame focused on the regional distribution of ballcourts, using ballgame as an element to understand the political organization of a specific territory. In many geographical areas, some scholars have noted how ballcourts were located along regional and political borders, thus becoming an important instrument of control and a way for resolving internal tensions. This type of analysis is now applied to Peten, Guatemala, to evaluate a possible similar scenario in this territory. Thanks to the use of GIS software, such as QGIS and SAGA, it was possible to use several algorithms and geomorphological information to analyse the territorial distribution of ballcourts in Peten. The aim was to reconstruct possible territorial boundaries between the different investigated areas and to evaluate the position of the various ballcourts along potential frontiers or ways of connection.

 12:00 – 12:30 Daniel Salazar Lama (Université Paris 1 – Panthéon-Sorbonne), Benjamín Esqueda Lazo de la Vega (Universidad Autónoma de Yucatán) Reconstruyendo el espacio del mito en la Subestructura II C de Calakmul, Campeche, México

El estudio integral de la arquitectura y sus elementos artísticos incorporados es un tema actual entre los mesoamericanistas. Las nuevas tecnologías permiten levantamientos, mapeos y reconstrucciones virtuales cada vez más fidedignos que favorecen este tipo de enfoques multidisciplinarios.

La Subestructura II C de Calakmul fue edificada en el siglo IV a.C., y sobre ella se erigieron cuatro fases arquitectónicas más a lo largo de 1200 años de historia constructiva, por lo que actualmente se encuentra oculta debajo del basamento piramidal de la Estructura II y únicamente puede ser recorrida a través de los túneles de exploración arqueológica. Debido a la complejidad de este espacio, en marzo de 2022, el proyecto "Arte que crea lugares" empleó el registro fotogramétrico Structure from Motion para proponer una reconstrucción virtual de la arquitectura, de los relieves de estuco y la pintura mural, que permitiese un estudio integral y completo de la subestructura.

Algunos avances del proyecto se han presentado en conferencias y textos desde 2021, incluyendo la 26a EMC en Bratislava, en la que se concluyó que el programa escultórico recreó el mito del descenso de Chaahk y el nacimiento del dios del maíz.

Esta nueva presentación es la culminación de una etapa analítica complementaria. Su objetivo es mostrar la reconstrucción virtual final de la Subestructura II C y discutir las evidencias arqueológicas y los procedimientos metodológicos que la sustentan. También se analizarán todas las imágenes dentro de su propio contexto y se intentará reconstruir la narrativa del mito a través del espacio arquitectónico.

#### Fifth Session: Colonial & Contemporary Mesoamerica

#### 14:00 – 14:30 John F. Chuchiak IV (Missouri State University)

"The Hills are of Live Rock, Dry and Waterless": Early Cartographic Encounters of Spanish Explorers and Conquistadors with the terrain of the Yucatan Peninsula, 1511-1600 From the very earliest European Encounters with the Maya region, Spanish castaways, explorers and later conquistadors all faced the difficult realities of the climate, topography, and geographic challenges of the Yucatan Peninsula. From their initial confusion over the nature of whether Yucatan was an island, or part of the mainland, to their brutal encounters with the harsh climatic conditions of the Northern Peninsula, and the difficult to navigate jungle terrain of the interior, Spanish conquistadors believed the terrain of the Yucatan Peninsula itself was one of their most difficult enemies. In their attempted conquests of the various Maya groups that inhabited what they viewed as one of the most difficult terrains in the Americas, they constantly were faced with the geographic realities of sparse access to water, and the difficulty of maneuvering within the impenetrable scrub brush forests of the North, and the dense and difficult to navigate jungles to the south. The hostility of the terrain was emphasized by the conquistador Francisco de Montejo, who wrote to the King, "the hills are of live rock, dry and waterless." As this presentation will examine, an almost two-decade violent encounter with what the Spaniards believed to be one of the harshest climates and terrains a conquest expedition had ever faced, added both psychologically and logistically to intensifying the brutal nature of the Spanish conquest of the region of Yucatan.

#### 14:30 - 15:00

#### Victor Castillo (Jagiellonian University)

Mapping Zaculeu: An Overview of the Historical Cartography of the Maya Highlands of Guatemala

Zaculeu was a major ceremonial center in the western highlands of Guatemala with a documented occupation of about one thousand years (ca. AD 500 - 1550). In the seventeenth century, Spanish criollo chronicler Francisco de Fuentes y Guzmán rendered a detailed account of the Spanish conquest of this site and produced a rather fanciful map of the architectural remnants that he observed around AD 1680. Fuentes y Guzmán also produced maps of other highland Maya sites that he idealized as castles or fortresses. Although Zaculeu was visited by renowned explorers and travelers in the nineteenth century, such as John Lloyd Stephens ---who even conducted a minor excavation— and Charles Brasseur de Bourbourg, new maps of Zaculeu emerged only until the first half of the twentieth century, reflecting nationalist and scholarly concerns over highland Maya sites. The controversial restoration project by the United Fruit Company at Zaculeu in the 1940s produced the best-known map of Zaculeu that, nevertheless, is a plan view of the reconstructed structures, not of the archaeological remnants per se. By discussing the political and cultural contexts in which known maps Zaculeu were created, this presentation offers an overview on archaeological mapping practices in the Maya highlands, from the decades immediate after the Spanish conquest to the mid-twentieth century.

15:00 - 15:30

#### **Margarita Cossich** (Universidad Nacional Autónoma de México) *Tlaxcaltecas y quauhquecholtecas mapeando la Guatemala del siglo XVI* (NB: remotely)

Durante el siglo XVI se llevó a cabo la conquista, o invasión, de la mayor parte de Mesoamérica. Entre los años de 1524 y 1530 varias expediciones y batallas fueron realizadas en el territorio actualmente guatemalteco. Estas comitivas fueron enviadas por Hernán Cortés pero lideradas por Pedro de Alvarado, Jorge de Alvarado y otros integrantes de la familia Alvarado. En este proceso histórico suele dársele prioridad al relato de los españoles, dejando de lado la importante tarea que fungieron los "indios conquistadores" en esta empresa. Es acá donde los documentos realizados por los

tlaxcaltecas y quauhquecholtecas conquistadores nos dejan claro que las conquistas fueron, en realidad, liderada y efectuadas por varios grupos indígenas. En esta presentación haré un recorrido por los dos trayectos que dejaron plasmados los nahuas al adentrarse en el territorio, ahora, guatemalteco, que quedó relatado en los lienzos de Tlaxcala y Quauhquechollan. Basada en estos dos documentos del siglo XVI, no solo veremos el recorrido por Guatemala, también compararemos la manera que cada escriba nahua utilizó para nombrar los pueblos conquistados; encontraremos similitudes y diferencias en la manera de escribir, pero quedará claro que ambos documentos usan el mismo repertorio de signos y reglas vistos en el complejo sistema de escritura jeroglífico náhuatl mesoamericano.

16:00 - 16:30

#### Rogelio Valencia Rivera (independent researcher)

Throwing Arrows and Stones: Domestic Space Demarcation and Appropriation in Colonial New Spain (NB: remotely)

The Conquest brought to America a cultural collision that incorporated new customs, eliminated some other, and specially, modified and adapted many of the usual ways of doing of the native population. This affected not only the forms of government or religious beliefs, but also every day activities, such as the transmission of land properties among the different social groups that formed part of New Spain.

According to some documents coming from Mexico's colonial period, certain ceremonies were held when a new owner took possession of a property. These events included the realization of certain acts, part of which had a clear Prehispanic origin, as they were employed in similar demarcation ceremonies in the past. But the newcomers modified these acts, or incorporated new activities to be included in such occasions, creating a new cultural framework under which property exchange activities were undertaken. Some of these documents even include the graphical representation of these properties, which help us to better localize the elements employed to signal new ownership.

The analysis of such activities, as were registered in Colonial period legal documents, lets us introduce our selves to the way the inhabitants, of the conquered territories, understood the concept of space and its possession, under the new Spanish rule.

16:30 – 17:00 **Enrico Straffi** (Escuela Nacional de Antropología e Historia (ENAH), Mexico)

*Mapeando el quincunce en área maya: propuesta teórico-practica* (NB: remotely)

En esta ponencia se presentarán los avances de mi investigación sobre un tema ampliamente debatido entre los mayistas, el del quincunce. Mi intención es mostrar con base en datos históricos, etnográficos y lingüísticos como la cuatripartición del espacio realizada a través de la búsqueda del centro y de las esquinas fue una de las concepciones espaciales más importantes entre los mayas quienes hicieron todo lo posible para conservarla al ser fundamental para el mantenimiento de su identidad colectiva. Por lo tanto, se mostrarán lugares que tienen o tuvieron el significado de centro o esquina y se explicará cuál fue mi metodología cartográfica para registrarlos. Se presentarán datos que proceden de distintas épocas (Prehispánica, Colonial, Siglo XX y XXI) y regiones (Altos de Chiapas, Yucatán, etc.) para mostrar cómo la concepción espacial quincuncial se expresó en distintos contextos históricos y geográficos. En especial, ahondaré en el análisis de los datos espaciales y simbólicos

encontrados en un documento colonial temprano de Yucatán, el "Deslinde de tierra de Yaxkukul Documento No. 1" ya que representa un caso excepcional al mostrar una continuidad de la concepción quincuncial hasta, por lo menos, los años 90 del siglo pasado. Si fuera aceptada la ponencia se realizará en español de manera virtual.

# 17:00 – 17:30Monika Banach (Jagiellonian University)Mapping Sacred Landscape in the Ixil Region of Guatemala

This presentation will concentrate on an example of a community mapping project carried out in Ilom, one of the Ixil Maya communities of the municipality of Chajul in Guatemala. Through documenting *k'atchb'al (lugares sagrados* or "sacred places"), I analyse some of the aspects of spiritual relationships that the Ixil Maya hold with their landscape. In particular, I look at how these relationships are represented in oral history, oral tradition, and ritual, and how they situate historical land dispossession, spiritual repression, exclusion, disregard of indigenous rights, state violence, and extractive development projects. I argue that a closer look at these narratives, toponymy, and interactions with physical bodies of the places-beings speaks to the relationality of Ixil cosmovision.

#### 17:30 - 18:00

#### Feliciana Herrera Sit Po'p (Pueblo Ixil de Nebaj) Cosmovisión e identidad del Pueblo Ixil desde la Cartografía

Antes de la imposición de los mapas o el registro de las tierras, el pueblo tiene su forma de limitación con otros pueblos o comunidades, háblese de ríos, plantas, piedras o lugares sagrados. Se considera que, para el periodo histórico denominado Clásico, el área Ixil ya estaba poblada, en 1530 fue invadida por los españoles, se impone una cultura diferente, racista y discriminadora. Esta no sólo despoja a los ixiles de sus tierras, sino la forma de vida desde la organización política, social y económica, que hasta hoy en día se ha logrado mantener.

La vida de los ixiles se basa en el calendario maya. El espacio es muy importante porque cada uno tiene un significado distinto y profundo para el pueblo partiendo desde los cuatro cargadores del universo. Se basa desde la identificación de la salida y la caída del sol, desde la salida y caída del aire, de ello depende las formas de cultivar, de desarrollarse económicamente. Para nosotros es muy importante el identificar los cerros protectores de cada pueblo o comunidad porque a ello se rinde homenaje para mantener la vida, la paz, la defensa y el bien común. Todo esto tiene un sentido desde la espiritualidad enraizada en el espacio para mantener el Tichajil "La vida".

El estado de Guatemala ha practicado diferentes formas de despojo a esta identidad. No se ha logrado porque hasta hoy se ha mantenido la organización propia a través de las autoridades, a través de los contadores del tiempo, las comadronas y un sistema político en sí para erradicar la violencia estructural del estado es un legado que se seguirá dando. Hasta el momento se mantiene y se comparte o se complementa con lo que tiene el estado, aunque varían las formas de ver el mundo - no es solo ver el mundo, es convivir con ello, es proteger, respetar y convivir.

