In January 2018, InHerit at UNC-Chapel Hill began an exciting new program and partnership with the National Geographic Society (NGS), which has generously sponsored a collaborative conservation and education initiative in Yucatán, Mexico entitled: Cultural Heritage, Ecology, and Conservation of Yucatec Cenotes. Among the most distinctive and beautiful geological and cultural landscape features of the Maya world, cenotes are natural sinkholes formed when the porous limestone bedrock of the Yucatan Peninsula collapses, exposing the vast underground river system beneath and creating unique cavern-like habitats with deep, fresh water pools.

The term “cenote” is a Spanish corruption of the original Yucatec Mayan word, tsono’ot, for these natural wells that have been of fundamental importance in the cultural and natural history of the region for thousands of years. Cenotes have traditionally served as crucial sources of cool, fresh water for Maya communities, and many ancient cities and towns were built around these vital resources. Conservative estimates place the number of these sinkholes dotting the peninsula at a minimum of 6,000, and archaeological explorations, most recently by the Great Maya Aquifer (GAM) project (https://granacuiferomaya.com/), along with research on indigenous painted manuscripts, have revealed much about the significance and history of cenote use. In ancient Maya religious thought, cenotes formed an important part of the sacred landscape as portals, allowing passage between the earthly realms of the universe and those of the underworld where certain gods and supernatural forces dwelt. Over the course of millennia, many caves and cenotes became sacred places for pilgrimage and ritual offerings. Today, many cenotes, both within and outside Maya communities, have been transformed into recreational sites for swimming, diving, caving, birdwatching, and the production of herbal medicine—all of which contribute to the tourist economy of the states of Yucatán and Quintana Roo, Mexico.
Unique and Vulnerable Resources

Unfortunately, conserving the natural beauty, archaeological heritage, and water purity of these singular and vulnerable resources (and the vast aquifer to which they are connected) is one of the greatest challenges that the children of Yucatán will face as they confront the specific ways that global climate change affects this habitat. Education is one of the keys to meeting this challenge and effecting a balance between conservation and secure livelihoods that are increasingly linked with tourism. Through the “Yucatec Cenotes” project, we are collaborating with NGS explorers on the GAM project, students and faculty from the Universidad de Oriente in Valladolid, Yucatán, and secondary school teachers in nine Maya communities located in proximity to cenotes. Our shared goal is to develop innovative, sustainable, and experiential educational curricula primarily for 11-14 year-old students. School and community activities will explore the geomorphology, ecology, oral history, paleontology, cultural and archaeological heritage of cenotes. One of our long-term objectives is to activate and harness the energy of Yucatecan youth to become advocates in and beyond their communities for the conservation of cenotes and the larger subterranean aquifer as critical resources. In order to do this, we are working with nine undergraduate student ambassadors from the Universidad de Oriente who will be assisting secondary school teachers from the Yucatec communities of Tahcabo, Calotmul, Hunukú, Nabalam, Yalcobá, Tikuch, Chichimilá, Tixhuálauctún, and Kaua in the development and implementation of three education modules that provide experiential learning content that complements and expands the existing state curriculum related to cenotes. These modules and the resources provided for each derive from on-going consultation with educators and directors of the secondary schools on our advisory board. We are planning three participatory workshops with expert consultants for our teams of teachers, student ambassadors, and InHerit project coordinators. Workshops will take place during the 2018 academic year.

Science, Humanities, and the Arts Connected through Cenotes

The workshops and modules revolve around three broad themes that are connected through cenotes: Oral History and Folklore, Science and Safety, and Archaeology and Heritage. The workshops provide educators with accessible information from the latest cenote investigations, lesson plans and student activities, as well as teaching resources that are flexible and can be integrated into their classes on a wide variety of subjects. From the initial roll-out of the program, the UNO student ambassadors assist teachers with implementation of the education modules in their

Cenote Zací in Valladolid, Yucatán is an important tourist site and open to the public for swimming.

Iván de León Ojeda speaks with an elder near a cenote in the center of Tixhuálauctún. Note the wooden crossbars used for a pulley system on the left and right.
classrooms and communities.

The first phase of the project is already underway, and we are making exciting strides! In March, the new InHerit Program Director, Dr. Dylan Clark, and project Co-Director, Dr. Iván Batun Alpuche (UNO), met with Dr. Guillermo de Anda, Ana Celis, and Karla Ortega of the Great Maya Aquifer project to explore options for integrating data, images, 3-D models, and virtual museums into the community education modules. We hired our Project Facilitator, Dr. Khristin Landry-Montes, who will be instrumental in developing the workshops in Valladolid. In addition, GAM biologists, Arturo Bayona and Julio Moure, along with underwater archaeologists from the project, will join in the Science and Safety workshops and related modules this summer to provide expert consultation on flora and fauna, as well as water quality testing, helping our 6th-8th graders gain valuable first-hand experience.

During this trip, Clark also visited most of the participating communities, including Tixhualactún, where Maestro Raúl Carvajal, Director of the secondary school and member of the Yucatec Cenotes advisory board, showed him two large cenotes in the center of town that, until relatively recently, were used as wells and still have the framework for pulleys used to reach the water. For some communities, our first workshop on Oral History and Folklore that examines local perceptions of cenotes and peoples’ experiences with them, along with the stories surrounding them is of most interest because of its potential to bridge generations, as young people speak with elders about the local knowledge and traditions they are able to share with each other. We are grateful to have staff from the Southern Historical Collection at UNC-Chapel Hill, including Bryan Giemza, Biff Hollingsworth, and Josephine McRobbie, assisting us with the methods of community-driven oral history as we work with participating teachers to develop oral history kits for students to explore even deeper ancestral knowledge and the on-going cultural significance of cenotes in the Maya world today. This module also underscores how intimately cenote heritage is intertwined with Yukatek Maya, the indigenous language of the region, as well as the myths, storytelling traditions, and other forms of artistic production that are an on-going part of community life. We hope that diving into cenote lore and oral histories inspires participating students to take pride in the Yukatek Mayan language and community cenotes and continue to actively create and share art in many different forms.

The Cultural Heritage, Ecology, and Conservation of Yucatec Cenotes project is off to an energetic start and will be ongoing through January of 2019. By emphasizing participatory and collaborative curriculum design with teachers and local college students every step of the way, we hope to create materials that will be useful and easily integrated into the standard public education curriculum. This, in combination with making the teaching resources widely accessible through the InHerit website, will encourage expansion of the program to other schools and communities and sustain the momentum generated in the pilot year of the project. Ultimately, we seek to bring the topic of cenote heritage and ecosystems to the foreground and transform students’ ideas about...
the collective benefit of conserving them and the larger aquifer. Today’s students will be the future stewards of these vital resources. Stay tuned! We will continue to provide updates and photos from the Yucatec Cenotes project on Facebook at https://www.facebook.com/inheritpassedtopresent and via twitter: https://twitter.com/inheritp2p. In future newsletter issues, we also look forward to introducing project team members and participants.

2018 Begins with a New Program Director

InHerit: Indigenous Heritage Passed to Present and the Alliance for Heritage Conservation are pleased to introduce Dr. Dylan J. Clark as the new InHerit Program Director. Dylan comes to Chapel Hill from Asheville, NC where he was most recently Adjunct Assistant Professor in the Department of Sociology and Anthropology at the University of North Carolina at Asheville, as well as Archivist and Curator for the George E. Stuart Library at Boundary End Center in Barnardsville, NC. Dylan is not entirely new to InHerit, as he helped to facilitate the Museums Connect “Maya from the Margins” visit to UNCA in April of 2017 with former Program Director and affiliate researcher, Dr. Gabrielle Vail, and then served on the Board of the Alliance for Heritage Conservation as Treasurer.

Dylan is a Mesoamerican archaeologist who received his Ph.D. in Anthropology from Harvard University in 2016. His research has centered on Maya coastal archaeology and public archaeology. He has carried out excavations at the ancient port of Isla Cerritos, Chichén Itzá, and Chunchucmil in Yucatán, Mexico, as well as Copán and Rastrojón in Honduras. He received a Fulbright-Hays Doctoral Dissertation Research Award in 2009 to support his work and was one of the first William Tyler Fellows in Pre-Columbian Studies at Dumbarton Oaks Research Library and Collection during 2011-2013. Over the past decade, he has taught courses in archaeology, cultural anthropology, arts and ideas, global history, and Latin American history at Harvard, Front Range Community College, Brevard College, and UNCA, and collaborated with museums and communities in both the U.S. and Mexico.

Dylan began as InHerit’s Program Director in January, jumping right into the Cultural Heritage, Ecology, and Conservation of Yucatec Cenotes project, first proposed last year by Drs. Vail and McAnany. This collaborative education project (see p. 1-3) has been funded by National Geographic through the early part of 2019, and Dylan will be involved in coordinating our team in the design and implementation of workshops and educational modules in Chapel Hill and Yucatán. Welcome aboard!

Tahcabó Museum Anniversary Celebration: Pat Boy Comes to Town

By Maia Dedrick

The second anniversary celebration for the Tahcabó Community Museum came at the end of multiple community initiatives and a two-month long laboratory season that followed a four-month excavation season. It was time to party and celebrate all that the museum and the Proyecto Arqueológico Colaborativo del Oriente de Yucatán (PACOY) had accomplished.

The event began with business and presentations. First, Maia Dedrick, project field coordinator, along with PACOY staff Miguel Kanxoc Kumul and Alex Tuz Bacab, introduced the 2017 excavations and what our work had entailed overall. We recognized the heritage committee...
Heritage committee member Mónica Yuridea Rosado Sulub receives a certificate acknowledging her participation in the committee during the 2016-2017 year.

The folkloric dance group of Tahcabo presents the jarana dance, beginning the cultural activities of the evening.

Pat Boy invites Tahcabo kids to share their best Maya language tongue twisters.

members and our invited guests, who included the town leaders and their wives, as well as Eva Noguera, director of Tahcabo’s Telebachillerato (community high school), who spoke to the audience about her perspectives on the importance of PACOY and the community museum. Following this, the President of the Tahcabo Community Museum Committee, Raquel del Carmen Rosado Aguayo, presented on the accomplishments of the year, including the Maya language summer programs offered to Tahcabo children, three archaeological tours conducted for Tahcabo residents, including a special Mother’s Day event, field trips for the Telebachillerato students, visits of student groups from the United States, and visits by fellow Mexicans to the community and museum. At the end of the presentation, Doña Raquel presented the vision that the heritage committee and town leadership had devised for a new and expanded museum on a property located near the town square, which the mayor has said he will donate to the project. Members of the PACOY archaeological team, Carly Pope, Morgan Russell, and Lauren Stroh, presented on the significance of our 2017 archaeological findings, while intern Dianely Estrella Valencia of the Universidad de Oriente explained the activities we had undertaken during our laboratory season.

Finally, it was time for the entertainment. First, the baile folclórico of Tahcabo, consisting of young women from the town, presented their traditional jarana dances, including one in which they balanced bottles on their heads. After that, the Pat Boy show began, featuring hip hop and rap in the Yucatec
Maya language. Miguel Kanxoc Kumul briefly interviewed Pat Boy about his upbringing, how he got into making music in Maya, and why he does it. Pat Boy and his group of artists, including DJ Rakalku, Verso Maya, and Xi’imbal Bej, gave a fantastic performance. They encouraged audience participation, inviting people to share their Maya-language tongue twisters and welcoming kids up to dance to the music on stage at the end of the show. It was a family-oriented evening, emphasizing Maya culture and language, and audience members of all generations thoroughly enjoyed themselves. PACOY thanks Miguel for successfully booking Pat Boy for the event and also expresses gratitude to the Archaeological Institute of America for its support of the museum and its initiatives. During Pat Boy’s show, PACOY team and heritage committee members distributed drinks and sandwiches to all attendees, as a small show of gratitude for their ongoing participation in and support of PACOY and the community museum.

Interested in Supporting InHerit’s Mission?

There are many ways to get involved! We welcome contributions of any amount to support the community needs related to our current grant: Cultural Heritage, Ecology, and Conservation of Yucatec Cenotes. Although the National Geographic Society has been very supportive financially, we are stretching to supply communities and our UNO Ambassadors with the resources that will help to make this project sustainable. Even a small contribution helps to boost the quality of teaching materials that we can provide for our collaborating schools. For example, a small donation could mean the difference between schools in Yucatán sharing equipment or each having their own. More needs include printing costs (3-D and 2-D), signs for cenotes, web development, Yukatek Maya translation, lunches for UNO Student Ambassadors, measuring and lighting equipment for submersible ROVs, and much more. Regardless of the amount, 100% of your contribution will go towards implementing the cenotes project. Simply send us an email at inherit.p2p.email@gmail.com and specify what you would like to support (or that we should use the funds at our discretion) and click on one of our donation buttons at http://in-herit.org or through our Facebook page https://www.facebook.com/inheritpassedtopresent. Either will take you to the Paypal account of our 501(c)3 partner, the Alliance for Heritage Conservation. Remember that the Alliance for Heritage Conservation is a registered non-profit organization, and your generous donations are tax-deductible.

You can also support InHerit programs more generally by doing your Amazon shopping through AmazonSmile. The AmazonSmile Foundation donates 0.5% of the purchase price to the customer’s selected charity. All you have to do is sign in as you normally would for Amazon shopping and make sure that the Alliance for Heritage Conservation is selected underneath the product search bar. Or, following this link https://smile.amazon.com/ch/27-3995217 will automatically select our organization when you log in. We appreciate your continued support!
InHerit: Indigenous Heritage Passed to Present is a UNC-Chapel Hill program administered by the Research Labs of Archaeology and the Department of Anthropology. The Alliance for Heritage Conservation is a registered 501(c)3.

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