The *Maya Scripta* Project: Museum, University, and Community-Engaged Scholarship in Dolores, Petén, Guatemala

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This paper focuses on the collaborative project between *Maya Scripta*, a public outreach epigraphic project from the Center for Archaeological and Anthropological Research of the Universidad del Valle de Guatemala and the Regional Museum of Southeastern Petén, or Museo Juan Pedro Laporte Molina. We demonstrate how, as a project with shared research agendas, we employed a community-engaged approach to achieve our goals. During this several months-long endeavor, we achieved our three objectives: (1) to increase the number of visitors received by the museum; (2) make the visit experience a more enriching one through interactive technologies and enlarged displays, and; (3) to evaluate and improve the perceptions local students had of ancient and modern Maya people through guided workshops. More people visited the museum compared to previous years while both enjoying and learning from the museum exhibit. The workshops also proved to reduce negative ideas the students held about the ancient and modern-day Maya.

**Keywords:** Public archaeology, Community-engaged archaeology, Maya epigraphy, Guatemala, Museum studies.
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Introduction and Background

The popularity and importance of Community-Engaged Scholarship (CES) is currently increasing among academics. Yet, the definition of CES can vary and its relevance and degree of professionalism are sometime questioned (see Dedrick 2021). This paper argues for the validity and importance of the CES approach. We showcase this validity and importance by describing the alliance between the Maya Scripta initiative and the Regional Museum of Southeastern Petén, Juan Pedro Laporte Molina (MRSEP) in a collaborative project running since early 2019. We start by describing each of the parties involved and their respective background. We then provide a brief discussion of what CES is and is not, followed by a description of the path we took while completing our project. Finally, we discuss our results which exemplify how CES can successfully and simultaneously achieve the goals of both academics and their community partners.

The Development of the Maya Scripta Database

The study of the ancient Maya in Guatemala, both archaeological and epigraphic, has been directed mainly by foreigners. As a result, most relevant and updated publications on the ancient Maya are written in English and published abroad, making them hard to access for most Guatemalans. Even when available in Spanish, technical language tends to alienate non-academics. Additionally, the systematic exclusion of indigenous-related contexts from the national curriculum since the mid-1800s prevents the public from learning about the Maya. Assessments of this situation and proposals to alleviate it abound (Arredondo 2018; Barrientos and Arredondo 2017; Ivic de Monterroso 2013; McAnany 2020; Morales Forte 2020; Rivas et al. 2014; Rubin and Ivic de Monterroso 2017; Vela 2009). In 2014, students and faculty from the Department of Archaeology at Universidad del Valle de Guatemala (UVG) launched an initiative aiming to take a step forward in sharing knowledge derived from ancient Maya inscriptions. This epigraphic information has been regularly kept within academic circles. Consequently, people such as children, young students, aficionados, and tour guides struggle to access the historical record of the Maya (Morales Forte 2018).

Recognizing this problem, we created Maya Scripta (https://tinyurl.com/mayascripta), an open-access online database through which all can access a growing number of Maya hieroglyphic texts. For each text, the webpage includes a photograph, a drawing, general data, the reading of the text, its translation into Spanish, and its chronological information (Figure 1). These data fields appeal to both the public and experts. A school pupil can use simple and accurate information, while a professional epigrapher can go through its content for academic research.

The MRSEP and its Role in the Community of Dolores

The Regional Museum of Southeastern Petén stemmed from the robust and fruitful archaeological work of the Atlas Arqueológico de Guatemala in the region, where more than 400 archaeological sites have been reported. A temporary exhibit in 1996 with pieces recovered by the
Atlas was well received by the Dolores community, which prompted the proposal to build a local museum. Administrative processes to establish the museum began in 1998 and the Ministry of Culture of Guatemala, with support from the Cooperación Internacional Española, inaugurated

**Figure 1.** Ixtutz Stela 4 as seen on the Maya Scripta platform.

Atlas was well received by the Dolores community, which prompted the proposal to build a local museum. Administrative processes to establish the museum began in 1998 and the Ministry of Culture of Guatemala, with support from the Cooperación Internacional Española, inaugurated
the museum in 2005 (Corzo 2007). Five years later, in a posthumous homage to the founder of the Atlas, it received the name Juan Pedro Laporte Molina. Since then, the museum seeks to guarantee the participation of the people and schools of Dolores in educational, social, and cultural activities focused on the protection and conservancy of cultural heritage (Hoil Heredia 2008).

Some of the principal activities coordinated by the museum include guided tours for national and international tourists, along with talks and workshops for students from local communities. One of the most popular cultural activities is La pedida de la Ixpasa’a pa mi calavera (i.e., Requesting Ixpasa’a for my skull). This tradition was brought to Petén by families from Southern Mexico who immigrated there in the second half of the 19th century, during the Caste War of Yucatan (Hoil Heredia 2009). Celebrated every year on November 2nd, commemorating the Día de Los Muertos, local kids make a skull (calavera) out of grapefruit or gourd and put a lit candle inside. Afterwards, they parade around the town requesting sweet maize atole, called Atol de Ixpasa’a. By the end of the night, there is a contest to pick the best calavera, based on its originality and creativity (Figure 2). In sum, the museum proudly displays archaeological artifacts and ancient Maya heritage, while also actively engaging in contemporary programs promoting local participation, engaging in non-formal education, and strengthening the surrounding communities.

Figure 2. Children participating in La pedida de la Ixpasa’a pa mi calavera. Photo by Walter Hoil.
Community-Engaged Scholarship: Concepts and Definitions

Conceptions of Community-engaged Scholarship (CES) vary across disciplines with no apparent agreement (CES is also known as Community-Based Participatory Research; see Atalay 2012). The Hannover Research (2018) mentions at least two approaches, the Imagining America Model and the Michigan State University Model. Additionally, in our professional experience, both in Guatemala and the USA, what anybody understands as CES depends heavily on their discipline, interests, and location (for a deeper discussion see: Beaulieu et al. 2018; Bebelle 2017; Bhattacharyya and Murji 2013; Boyer 1996; Brown et al. 2003; Jay 2010; Jiménez Izarraraz 2015). Before committing to CES, it is important to differentiate between three often equated approaches: Community Service (CS), Public Scholarship (PS), and CES. They are all important but have different objectives worth mentioning.

Community Service is the enrollment of any person in a system, institution, or elsewhere to support a specific community and address its needs. Community service is a laudable endeavor not requiring the use of specific scholarly skills and abilities. In contrast, PS and CES demand

Figure 3. Replacing old billboards with new ones. Photos by Francisco Pérez and Rubén Morales Forte.
specific academic abilities and characteristics. Public Scholarship (Almansa Sánchez 2013; Jay 2010; Merriman 2004; Svanberg 2013) consists of sharing the knowledge produced or obtained through scholarly work in a public-friendly way (i.e., accessible to those whose income is not professionally linked to the concerned discipline; Jiménez Izarraraz 2015). Examples of PS include interpretative trails, newspapers and magazine publications, media blogs, and documentaries. What sets CES apart from PS in the fields of archaeology and epigraphy is going beyond adapting our work to fit the public’s interests and including residents of the local towns or villages, who comprise the community, in the research process from its conception. The questions to be answered and the path to be taken are not just presented by scholars for the approval of the people in the local community but built in conjunction, creating and working in a dynamic where both voices carry equal weight (Bebelle 2017; Jay 2010; McAnany 2016; Nicholas et al. 2008). Crucial to the CES approach are seeking common grounds that benefit both parties: sustainable and long-lasting results for the local community and data for advancing scientific research need to be included as goals.

**Designing the *Maya Scripta* and MRSEP Community-Engaged Project**

Our first step in launching a community-engaged project between *Maya Scripta* and MRSEP was to hold a meeting about the possibility of joining efforts. We discussed what *Maya Scripta* was and our interest in implementing the platform to benefit and enhance the museum. At that time, the main needs for the museum were to increase the number of visitors and to diversify their audience. The museum is seldom visited by anyone outside of the broader Dolores area. Thus, publicity for the museum became a crucial element of the project. Further meetings and phone calls allowed
the Maya Scripta team and the MRSEP personnel to determine the three objectives of the project: (1) increase the number of visitors and diversify their demographics, (2) improve the visitor’s experience through updates to the exhibitions, and (3) foster local knowledge about the Maya while improving visitors’ perceptions of the ancient and contemporary Maya. Three work axes were identified to achieve these goals: marketing, exhibition, and education.

Marketing

Our marketing strategy first led us to replace two old billboards on the highway with new ones to attract the attention of travelers passing by Dolores on their trips (Figure 3). To ensure high quality, they were created by a professional designer and printed on high-quality material. One of the main reasons preventing people from visiting the museum is their ignorance of its existence. To address this deficiency, we invited the media to cover our work. Two newspapers publicized our work in several notes. Nuestro Diario Norte, which covers news from Alta Verapaz, Izabal, and Petén, presented three notes about the project. Around the same time, a national newspaper, Prensa Libre, devoted four pages of its Sunday magazine, Revista D (https://tinyurl.com/RevistaD), on October 20th, 2019, to the Maya Scripta

Figure 5. One of two tablets installed in the exhibit. Photo by Rubén Morales Forte.

Figure 6. Workshops with high (left) and elementary (right) schools. Photos by Francisco Pérez.
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Internal museum records show that these strategies brought many more people to visit the museum (Morales Forte 2020).

Exhibition

As part of our strategy to improve the exhibition, we added three large stelae drawings on aluminum plates (Figure 4). These showcase three of the region’s most prominent monuments. The first, Ixkun Stela 1, is the largest stela in Petén and probably the most famous stela in Southeastern Petén. The second, Sacul Stela 1, located at the remote archaeological site of Sacul, was looted in the 1970s. While the monument is now missing its upper third, good pictures were taken before its looting and Nicholas Carter, then at the Corpus of Maya Hieroglyphic Inscriptions at the Peabody Museum of Harvard University, was able to redraw the stela based on Ian Graham’s pictures. Carter kindly shared that drawing with us to include it in the museum exhibit. The third, Ixtutz Stela 4, is a beautiful monument on display in the National Museum in Guatemala City, over 400 km away from its original location. While most people from Dolores have seen the nearby Ixkun Stela 1, few locals have seen Ixtutz Stela 4 in the capital city or visited Sacul to see its Stela 1. Including these salient monuments in the exhibit brings people closer to the monuments and can motivate them to visit more archaeological sites to see the original pieces. To assess how people perceived the exhibit, we created a “visit experience survey” available to any museum visitors willing to answer it. After seven months, we analyzed our data, which is presented below. Additionally, interactive technologies were implemented through two Samsung Galaxy Tablets with which visitors can learn the content of the texts from the monuments in the exhibition and from several other archaeological sites, thus expanding their knowledge of Maya inscriptions through the Maya Scripta online platform (Figure 5).

A very important part of committing to a full community-engaged methodology was to keep as much of the production as possible at a local level. This meant buying all supplies in the Dolores area.
instead of bringing them from Guatemala City, even when local prices were higher. For this reason, the iron plates over which the billboards were installed and the wooden cabinets for tablet displays were made by Dolores-based blacksmiths and carpenters. The same holds true for the printouts reproduced in the local bookstore used in the educational phase. The projector and equipment used for lectures and the museum presentations were also purchased locally.

**Figure 8.** Comparison of the number of visitors: 2017-2018 and 2018-2019.
The educational axis of our project featured nine workshops on Maya culture offered to the local community. Two workshops were aimed at 5th and 6th graders from two different schools, while seven more were created for junior and senior high school students (Figure 6). Workshops for elementary and high schools covered general topics such as geography and chronology of the Maya area. Beginner workshops then focused on the reading order of Mayan hieroglyphic writing and details which could be interesting for a 12-year-old, like the names of the animals and calendrical elements. Meanwhile, the high school workshops were more specific, delving deeper in the writing system and engaging students with the stories contained in the monuments. Both groups participated in exercises, searching syllabograms and logograms from handouts to identify glyphs in the inscriptions and reconstructing the reading by themselves. Every workshop also highlighted elements showcasing continuity in cultural practices between the ancient and modern Maya, such as the calendar, weaving, language features, cosmovision, and foodways. Museum guides also received training on how to use Maya Scripta and include more regional epigraphic information in their tours (Figure 7). Guides valued and embraced these workshops since they allowed them to both learn how to operate the tablets and narrate the stories inscribed in the monuments – something visitors often ask about.
The nine workshops were spaced out during three different visits to Dolores. All the material was developed in collaboration between *Maya Scripta* and the museum personnel, relying on their knowledge and previous research. Investigations from the Atlas Arqueológico de Guatemala in Sacul and Ixkun (Laporte and Mejía 2005, 2006) were also key resources for preparing the workshops. The students attending the workshops were recruited by the MRSEP through invitations to local schools.

**Evaluation of the Educational Axis**

The evaluation of our educational axis focused on the high school groups, or 16 to 18-year-old students from the 11th and 12th grades of the Bachilerato en Turismo (High school diploma focused on tourism). We opted for this focus since these students could benefit the most from the workshop material and were most engaged in the museum activities. The assessment of the workshops’ impact on elementary school students is beyond the scope of this study but will be evaluated in the future.

From August 2019 to February 2020, one high school group (D) received three workshops, one group (C) attended two, one (B) attended a single workshop, and one (A) attended none. After completing the number of workshops apportioned for each group, students answered a survey to measure their knowledge and perception of the Maya by ranking a series of positive and negative characteristics according to how representative they were of the ancient and modern Maya (a sample of this survey can be found in Morales Forte 2020:122). As a group progressed, we incorporated more elements into the workshops. By the end of the first workshop, students could read Ixtutz Stela 4. Moving into the second and third workshops we delved into the emergence and martial history of two allied cities in the ancient political landscape of Southeastern Petén, Sacul and Ixkun (Carter 2016; Laporte and Mejía 2005, 2006).

The learning and attitudinal results for each group were contrasted among the different groups. These comparisons provided a sense for the difference in students’ knowledge and opinion about the ancient and modern Maya according to the number of workshops attended, while also reflecting the effectiveness of *Maya Scripta* as a learning tool and the workshops as teaching channels.

**Results**

Our three project objectives – improving the number of visitors, the visitors’ experience, and the knowledge and perception about the ancient and modern Maya – were achieved. Installing the billboards and promoting the museum brought more visitors. Our joint efforts began in July of 2019 and, from that point forward, every month saw an unprecedented increase in visitor numbers in comparison to the same month of the previous year; something that had not occurred in the years preceding our project (i.e., between 2017 and 2018; Figure 8).
Since the data on visitor numbers do not have a normal distribution, non-parametric tests were used in addition to the visual assessment of the graphics. The Wilcoxon Signed Rank Test for related samples indicates that there was no statistically significant difference between the number of visitors received in 2017 and 2018 for July through December. However, the test demonstrates that the difference is significant between 2018 and 2019, suggesting that our marketing strategy successfully attracted more visitors (Table 1).

The largest increase occurred in September and November 2019. This growth coincides with the installation of billboards on the highway, two of Nuestro Diario’s reports in mid-August, and the publication of the Revista D article in late October. The billboards and Nuestro Diario attracted mainly regional people and passing travelers. Meanwhile, the nationally distributed Revista D likely brought attention to national tourists who tend to travel in November and December, when K-12 students are on vacation. The decrease in visitors in October can be explained by the fact that it is the final month of the Guatemalan school year, when institutions and students are busy with exams and closing assignments.

Over the span of six months (from August 2019 to February 2020), 92 visitors agreed to fill a survey to assess their experience. Amongst them, 57% claimed to have learned a lot at the museum, while 34% learned something, and 9% only learned a little. None said they learned nothing. Similarly, 51% responded that the Maya Scripta platform had contributed a lot to their learning process, 31% said it contributed somewhat, and 2% said it contributed a little. Among the 16% who mentioned it did not help at all, several visited the museum on days with a poor internet connection, complicating the access to the webpage. This was reported by the museum guides since the survey did not include a “N/A” option. Unfortunately, we cannot know for certain how many of those answers reflect connectivity issues and how many refer to discontent with the platform. These results corroborate the important educational role the museum plays for the visitors and how the incorporation of Maya Scripta contributes to this role by providing a deeper knowledge of the ancient Maya. Permanent connectivity is still a challenge but the chances of people visiting when...

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<th>Median of Differences Between</th>
<th>P Value</th>
<th>Conclusion</th>
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<tbody>
<tr>
<td>2017 and 2018</td>
<td>0.255</td>
<td>Null hypothesis retained. No significant difference between the number of visitors from 2017 and 2018.</td>
</tr>
<tr>
<td>2018 and 2019</td>
<td>0.023</td>
<td>Null hypothesis rejected. There is a significant difference between the number of visitors from 2018 and 2019.</td>
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Table 1. Wilcoxon Signed Rank Test to compare the number of visitors from 2017 through 2019 with α =0.5.
the network fails are slim, resulting in most visitors benefiting from the platform. To assess the situation, we have contemplated the possibility of developing a feature that enables to download the data from *Maya Scripta*. This would allow for the synchronization of material when connection is good and the possibility to access it when internet is poor or lost.

The data from the educational section are only preliminary (Morales Forte 2020) and under revision for further publication (Morales Forte et al., in process). Yet, the trends suggest that the main impact of workshop participation was in debunking myths and misconceptions held by students about the Maya (Table 2). As students attended more workshops, their negative perceptions about the Maya decreased (Figure 9). Group A presented an exception. Without having attended any workshops, their scores on perception were high; something which may be explained by the demographic composition of each school cohorts and teachers (see Morales Forte 2020:78-79). The results show the importance of including cultural education in the classroom and continuing to support local museums, which participate in this endeavor daily.

**Conclusion**

The joint collaborative project of MRSEP and *Maya Scripta* exemplifies the value of CES. From the museum perspective, both the number of visitors and their enjoyment of the exhibition have improved. From the academic side, we were able to gather important data on the perspective students have on indigenous people and how to improve it. Directed workshops and public media, such as the *Maya Scripta* platform and the newspaper articles, proved to be powerful tools for bringing people closer to the cultural heritage of the region.

Previous outsider scholar participation in the museum has focused on studying its artifacts,

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<th>Perception</th>
<th>P Value</th>
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<td>Positive characteristics of the Ancient Maya</td>
<td>0.762</td>
<td>Null hypothesis retained. No significant difference among groups regarding the positive perception of Ancient Maya.</td>
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<tr>
<td>Negative characteristics of the Ancient Maya</td>
<td>0.006</td>
<td>Null hypothesis rejected. There is a significant difference among groups regarding the negative perception of Ancient Maya.</td>
</tr>
<tr>
<td>Positive characteristics of the Modern Maya</td>
<td>0.784</td>
<td>Null hypothesis retained. No significant difference among groups regarding the positive perception of Modern Maya.</td>
</tr>
<tr>
<td>Negative characteristics of the Modern Maya</td>
<td>0.038</td>
<td>Null hypothesis rejected. There is a significant difference among groups regarding the negative perception of Modern Maya.</td>
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**Table 2.** Independent-Samples Kruskal Wallis Test to compare the difference in perceptions on the Maya across groups with \( \alpha = 0.5 \).
leaving the local community aside. In this case, with direct interaction between scholars and community members, local current and future guides were included, and found even more value in the cultural heritage with which they work. This engagement among universities, museum, and students yielded fruits, improving the museum and providing research data in the process. Having an open communication channel and shared agenda among all parties involved facilitated the process. We expect to expand upon this alliance in the future to keep having a positive impact on the Southeastern Petén community and participate in the MRSEP growth. Strategies include increasing exposure in social media and reaching broader areas of the tourism industry, as well as continuing to host participatory workshops. Future iterations also aim to replicate the perception study with a wider sample, ideally at a national level in Guatemala.

Through this case study centered in Dolores, we expect to motivate more academic endeavors to include public and community-engaged approaches in their plans. We hope to have shown how the collaboration between academics and communities is not only ethical but productive, and in the best interest of everybody involved.

Acknowledgments

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References

Almansa Sánchez, Jaime
2013 To be or not to be? Public archaeology as a tool of public opinion and the dilemma of intellectuality. *Archaeological Dialogues* 20(1):5–11.

Arredondo, Ernesto

Atalay, Sonya
2012 *Community-Based Archaeology: Research with, by, and for Indigenous and Local Communities*. University of California Press, Berkeley.

Barrientos, Tomás, and Ernesto Arredondo

Beaulieu, Marianne, Mylaine Breton, and Astrid Brousselle
2018 Conceptualizing 20 years of engaged scholarship: A scoping review. *PLOS ONE* 13(2)

Bebelle, Carol

Bhattacharyya, Gargi, and Karim Murji

Boyer, Ernst L.

Brown, L. David, Gabriele Bammer, Srilatha Batliwala, and Frances Kunreuther

Carter, Nicholas P.
Corzo, Lilian

Dedrick, Maia
2021 Community-Engaged Archaeology and the Question of Rigor. The Mayanist 3(1):57-76.

Hannover Research

Hoil Heredia, Meliton
2009 Reseña Monográfica del Municipio de Dolores, Petén.

Hoil Heredia, Walter
2008 Acontecimientos historicos de la administracion municipal de Dolores, Petén. Revista Ixtanche’e 300 años, Dolores, Petén.

Ivic de Monterroso, Matilde

Jay, Gregory

Jiménez Izarraraz, María Antonieta

Laporte, Juan Pedro, and Héctor Mejía (editors)


McAnany, Patricia

Merriman, Nick

Morales Forte, Rubén
2018  La epigrafía en los sistemas de bibliotecas de información: Un estudio de caso en las inscripciones del Alto Pasión. Tesis de licenciatura, Dept. of Archaeology, Universidad del Valle de Guatemala, Guatemala.

Morales Forte et al.

Nicholas, George P., John R. Welch, and Eldon C. Yellowhorn

Rivas, André, José Garrido, and Tomás Barrientos

Rubin, Beth, and Matilde Ivic de Monterroso

Svanberg, Fredrik

Vela, Claudia