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November 13–14, 2018

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Forward Together: A Culture-Nature Journey Towards More Effective Conservation in a Changing World

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The Presidio

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This symposium was convened to share insights on how understanding culture-nature interlinkages on many landscapes and waterscapes can shape more effective and sustainable conservation.

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2018 US/ICOMOS Symposium

Forward Together: A Culture-Nature Journey Towards More Effective Conservation in a Changing World
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**Archaeology Under the Canopy:
Exploring the Culture and Nature of El Pilar and the Maya Forest**

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Abstract

At the El Pilar Archaeological Reserve for Flora and Fauna in the Maya forest, we are developing *Archaeology Under the Canopy* to explore: 1) values for conservation inspired by place; 2) culture and nature together as a preservation model for the 21st Century; and 3) alternatives for tourism development that engage visitors in culture *with* nature. The philosophy is to honor the many ways to knowing. Through the context of experiencing the Maya's relationship to plant use, land management, forest regeneration, past and present, the living museum leaves an intricate and complex civilization to the imagination while welcoming participation to the protection of the architectural heritage and the Maya forest. This practice of *Archaeology Under the Canopy* has implications for monument conservation not only for the Maya but all over the world, integrating environmental and cultural contexts of a site and honoring the local and traditional environmental knowledge. Though *Archaeology Under the Canopy* was conceptualized for the Maya world, it is based on ICOMOS standards of the Athens Charter, the International Charter for the Conservation and Restoration of Monuments and Sites, and the Australia ICOMOS Charter to build a strategy to conserve the nature of the cultural remains.

Keywords

land use, conservation, park management, ancient architecture, Maya

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Archaeology Under the Canopy: Exploring the Culture and Nature of El Pilar and the Maya Forest

Introduction

For thousands of years, the ancient Maya civilization thrived in what conservationists call one of the most biodiverse landscapes of the world: the Maya forest of southern Mesoamerica (Fig. 1). With estimates of 7 to 11 million people at their height around 700CE and covering 95,000 sq km (Canuto et al. 2018), the Maya civilization established major centers and successful subsistence systems that sustained growth over many centuries. They captured the Western gaze in Stephens and Catherwood's folios and travelogue, depicting the majestic monuments encountered in the 1830s in the context of their forests (1962[1854]). This focus on the palaces and temples sparked the public's imagination and fueled investigations of the early 20th century (Adams 1969). As interest and research expanded, it moved these ancient Maya city centers to the public stage (Sullivan 1991). Today, the Maya world is a branded attraction stressing ancient temples for tourism development at the expense of the Maya forest. Land use and land cover are fundamental conservation values, critical for ancient monuments where their cultural integrity is woven into the natural environment. Exposed monuments are a reconstruction of the 20th Century model, leaving the architectural heritage exposed and unprotected from weathering and erosion. Forgotten is the context of the monuments in the tropical forests as illustrated in Catherwood's drawings of Chichen Itza. Compare that image to the modern icon of today (Fig. 2); there is only a superficial resemblance between the two. What are the long-term implications for this type of exposure and the message it sends for understanding the Maya and their forest?

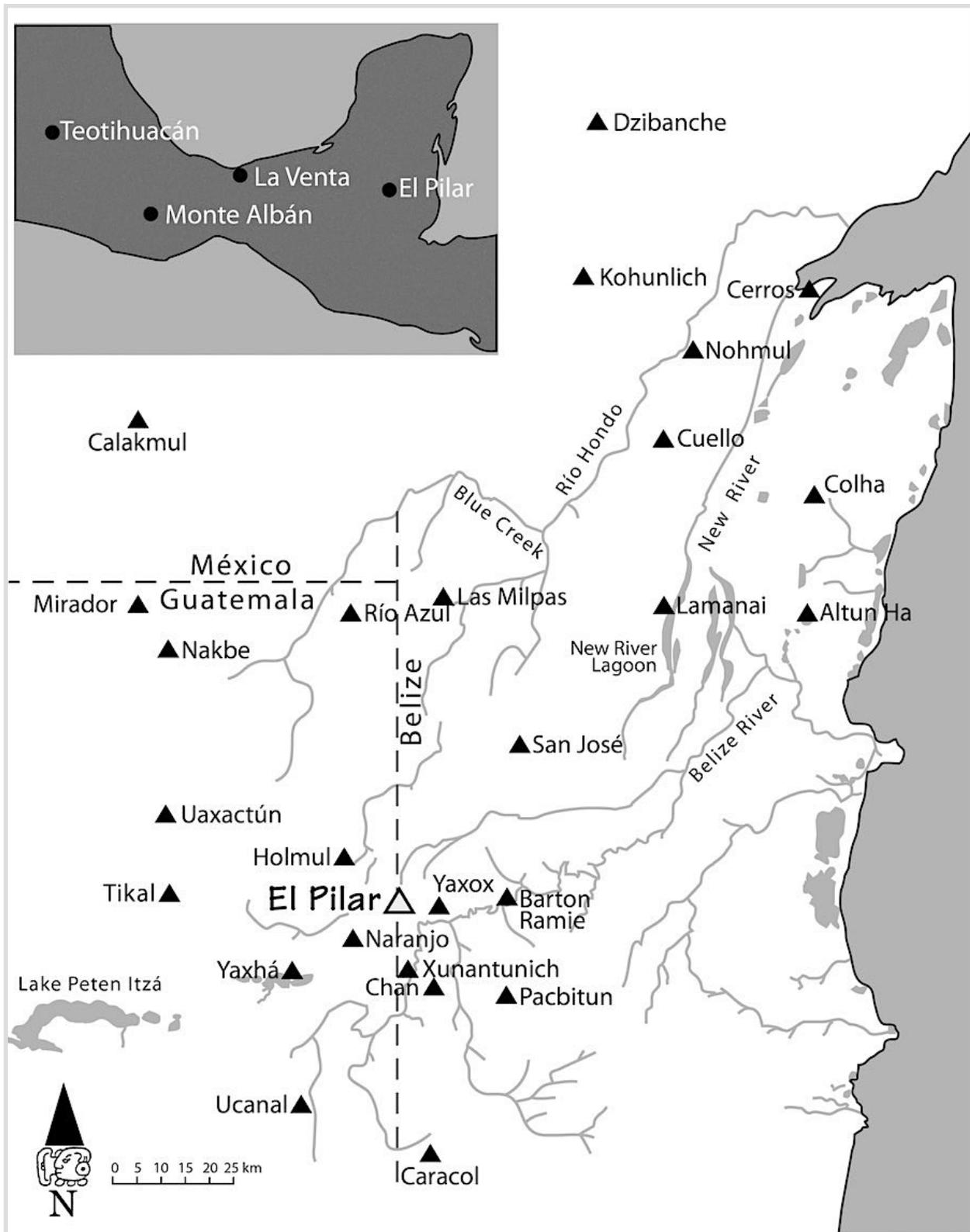


Figure 1. The Central Maya Lowlands with El Pilar Features.

Courtesy of the MesoAmerican Research Center.



Figure 2. Catherwood's Castillo of Chichen Itza of the 1830s Compared with a Contemporary Devotement. *Courtesy of the MesoAmerican Research Center.*

The ICOMOS Venice Charter states that the integrity of the ancient architecture must be upheld and that one should *not* use imagination when exposing monuments. In the case of Maya, however, it is the marketing of archaeological tourism that has fueled their mystique and influenced the vision of monuments. The creation of a narrative of 'lost' civilizations and their 'discovery' by intrepid explorers is evocative, but what of the actual heritage? Does it capture the essential quality of the ancient Maya encounter? The exposed result raises the issue of authenticity (Fedick 2003) and poses a challenge for conservation alternatives (Ford and Havrda 2006).

Is the moment of archaeological interpretation static or dynamic? This then begs the questions of what is a faithful or genuine representation of time past, and how value is placed on an historical site and its importance. The conservation of the authentic is an essential contribution to the clarification and illumination of the collective memory of humanity (National Archives and Records Administration, NARA, 1994). Arguments concerning what is and what is not authentic are far from cut and dried. Authenticity should not be defined in terms of the absolute, such as the narrative portrayed for the Maya by Turner and Sabloff (2012). The establishment of sites honoring cultural heritage have the opportunity to challenge the standard trope to provoke the visitor to question what they see, making them an active part of the experience. This is exactly

what the El Pilar Archaeological Reserve for Maya Flora and Fauna seeks to inspire (Ford and Havrda 2006).

Encountered while surveying the local Belize River area for ancient residential settlements, the magnificent monuments of El Pilar were mapped by our University of California Santa Barbara archaeologists in 1983. Known by local farmers and from the attentions of lumber and chicle harvesters, the area was the domain of more furtive illicit looting and poaching activities. Survey, mapping, and excavations were conducted from 1983 to 2002, with a focus on ancient residential settlement beyond the monuments of El Pilar (Ford 1991; Ford and Fedick 1992; Ford and Horn 2017). Attention to community participation (Ford and Ellis 2013; Ford and Santiago 2005) and the management planning process for the protected area (Ford 2006; Ford and Havrda 2006) dominated the first decade of the 21st century. Recently, the project has been involved in the inventory of the cultural resources of the ancient Maya (Ford 2014; Ford and Horn 2018) and the natural resources signified by the dominant trees of the Maya forest (Ford 2008). While still only the tip of the iceberg, we have a basic overview of occupation and construction of principal monuments at El Pilar and of its residents (Ford 2004; Ford and Horn 2017). Our research on the development of the Classic Maya center of El Pilar suggests that it served the surrounding populace for at least 2,000 years, beginning around 1000BCE, and for about 300 years at its height (600-900 CE) was home to around 20,000 Maya.

With sustained research and development in the area and at the site, we now have insights into the importance of El Pilar in the pantheon of Maya centers. Instead of “tourist friendly lawns,” the open plazas with the ancient temples and palaces at El Pilar are protected by the shade of the Maya forest, reintroducing visitors to the natural setting of the Maya sites today. Shade in the main plazas provides a cool refuge in the otherwise hot tropics at the same time giving habitat for the diversity of flora and fauna that typify the Maya forest. This ecosystem emphasis is designed to evoke the magical atmosphere of a lost city in the jungle, and one the archaeologists and visitors alike can enjoy. The site is teeming with exotica, much of which is quickly

becoming scarce worldwide. This we call *Archaeology Under the Canopy*, an exhibit of architectural relics in their natural context.

Today, visitors to El Pilar can step back in time and imagine the Maya gathering in the great plazas of the center linked together by an ancient causeway across the modern political boundary of Belize and Guatemala. Unique among Maya destinations, the site includes ancient Maya houses, occupied by one of the multitude of households that made up the city inhabitants. This unconventional design of a living museum calls to the imagination within the verdant Maya forest. With its tremendous historical, cultural, and environmental value, El Pilar's future is still being molded.

Creation of the Reserve and Implications for Future Peace Parks

The management strategy for the El Pilar Archaeological Reserve for Maya Flora and Fauna has evolved through processes and collaboration among the many stakeholders: government agencies, non-profit organizations, community members, and scientists, among others. From this base, the collective inspired the full protection of El Pilar. In Belize, El Pilar is protected with a Statutory Instrument (MTE 1998) as an archaeological reserve of the Institute of Archaeology within the National Institute of Culture and History. In Guatemala, El Pilar is protected as a Monumento Cultural within the Reserva de la Biosfera Maya by Consejo Nacional de Areas Protegidas. With both governments recognizing El Pilar, the contiguous reserve protects one cultural resource in two nations, committing to a shared, long-term comprehensive adaptive management strategy (MARC 2018).

The establishment of parallel management planning for one shared resource in two countries, Belize and Guatemala, is the essential base on which El Pilar depends (Ford and Montes 1999). Education at the local, national, and regional levels is key to the activities associated with the binational management process. The success of parallel plans is designed around three components: government requisites, organization needs of the El Pilar Archaeological Reserve, and community participatory design. Today, El Pilar is a contiguous reserve that bounds 2000 ha

(5000 acres) within Belize and Guatemala and can be visited from both countries (Fig. 3). El Pilar is a model for international management and conservation as a peace park.

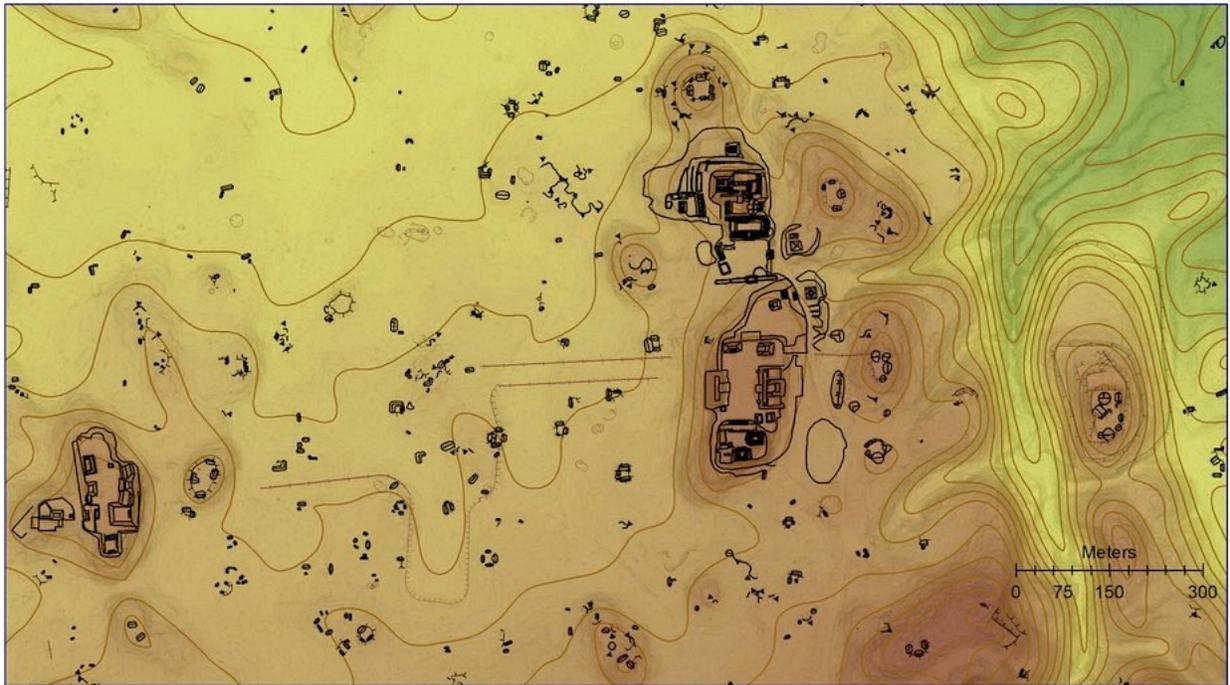


Figure 3. The Core of El Pilar. *Courtesy of the MesoAmerican Research Center.*

Culture and Nature in The Maya Forest: A Working Philosophy

Contemporary communities of the Maya forest have pioneered lands and adapted to environmental conditions that have a long and dynamic tradition connecting to the ancient Maya civilization. While recent community patterns emerged under different conditions, the same natural and physical resources shape a complex interwoven alliance between culture and nature. The people, flora, and fauna of the Maya region all share a common past, are united by the related present, and stand threatened by an uncertain future. The El Pilar Program unites an unique interdisciplinary research and development team that relies on an integrated community-science approach to understanding the biodiverse Maya forest.

As globalization homogenizes society and infringes on time-honored traditions, community continuity is vulnerable and valuable accumulative knowledge, native to the region, is vanishing.

The irreplaceable cultural resources of the archaeology, and the natural and physical resources of the Maya forest are local assets that can accrue value with investment, stewardship, and management. The El Pilar project seeks to demonstrate the critical need to understand ancient patterns of land use change over time and across space to present grounded models of sustainability, resilience, and transformation for the region.

Our work at El Pilar follows the premise that community participation is essential in the conservation of cultural and natural resources of the Maya forest. We have engaged leaders as integral participants in projects at El Pilar. Education programs in the community draw upon their wise participation (Awe 2000, 2001). In addition, we have incorporated youth into our team, working to promote strategies for the interpretative programs at the reserve (Ford 2006; Ford and Wernecke 2002). From these activities, we continue to develop a deeper understanding of the nature and culture of El Pilar.

Understanding the Maya Forest as a Garden

Traditional Maya forest gardens are a legacy of the ancient Maya and are hailed as the most diverse in the world (Campbell 2007). Defining the forest garden is the essential step to understanding the Maya forest. Humans have interacted and shaped their environment over tens of thousands, even millions of years. Originating in Africa and radiating out through Eurasia and ultimately into the Americas, the dynamic human engagement with the environment has left a mark. Using fire and stone tools, humans early on had great potential to modify their surroundings and influence the composition of the landscape. A forest garden represents an historical ecological setting that reflects the cumulative needs and values of the people who managed that setting, from a house lot to habitats and landscapes. The Maya forest garden is an anthropogenic wooded landscape based on swidden, where human choice with cutting and burning is integral to natural regeneration (Conklin 1954; see also Chazdon 2014). The consequent landscape echoes cycles of selection favoring daily human needs with annual crops opening gaps giving way to useful perennial woodland canopy. This legacy however, is being practiced in ever fewer numbers as traditional ecological knowledge is eschewed for modern

technology, and the encroachment of mechanical farming and urbanization having a distracting effect on the interest and opportunity of the local youth.

The human settlement development and the evolution of social complexity in the Maya forest can be traced across the millennia, and the El Pilar Archaeological Reserve for Flora and Fauna is a living example and significant part of that past. The foundation we have established at El Pilar forms a basis to showcase past land use, to understand changing natural and cultural spaces, and to develop a synthetic knowledge base from science and local traditions. This foundation promotes a replicable conservation model of the Maya forest that underscores the responsibilities and benefits of conservation strategies for the local community and the region as a whole.

The ancient Maya have long been exalted for their architectural and artistic grandeur, but not for their land use and management (Douglas et al. 2018). For decades, the ancient Maya, and their contemporary descendants, have been rebuked by archaeologists, anthropologists, conservationists, and other scholars who cite the ancient civilization's agricultural practice to explain the "Classic Maya Collapse." While they agree that other factors may have contributed to the transformation of Maya civilization roughly 1,000 years ago, they claim the civilization's traditional slash-and-burn *milpa* farming caused widespread environmental devastation that led to the change (Turner and Sabloff 2012). The problem with this narrative is that it is assumed, not tested. Viewed in light of Western perceptions of agriculture, the focus has been on the crops, not the entire system. An alternative proposition integrates research in agroforestry (e.g., Gomez Pompa 1987), details of study in the world's tropics (e.g., Conklin 1954), and field work with Maya forest gardeners (Ford and Nigh 2010). From the standpoint of household needs we recognized that the Maya were not only superb farmers but also forest managers who domesticated their indigenous tropical landscape based on the milpa-forest garden cycle (Ford and Nigh 2015). In this way they provided for annual crops and perennial woods.

This agricultural alternative is derived from the contemporary Maya themselves along with an expanding literature on agroforestry and economic botany: the Maya forest garden. The complex

fields and home gardens of the Maya were encountered by the Spanish and are still cultivated by the tenacious Maya traditionalists today, demonstrating their great knowledge and appreciation for the natural environment (Macduff 2012). The Maya farm without the need of draft animals or plows. They rely on hand tools along with a sophisticated management of fire (Nigh 2008). Their cultivation and reforestation system is called the “milpa cycle.” It is a traditional land use system by which a closed canopy forest is transformed into an open field for annual crops, then a managed orchard garden, and then back to a closed canopy forest once again repeating across the landscape for generations, centuries and millennia (Ford and Nigh 2015). One full cycle covers at least 20 years (Ford and Clarke 2019).

The misconception about the milpa cycle that holds the position that the system is unsustainable comes from the assumption that the annual cropping of fields is all that is cultivated. The assumption is that lands, after several years of annual crop cultivation, are allowed to convert to bushes and trees and are “fallow” or unused. Far from the fact, the fields are never abandoned, they are strategically reforested. The milpa cycle is a rotation of a short term of annuals with a long period of successive stages of useful forest perennials during which all phases receive careful human management (Ford and Nigh 2015). The milpa has its own ecology of herbs, tubers, fruit, spices as bushes and trees that serve important purposes of food, fiber, wood, medicines, and even plants that deter pests of the main crops. The cycle is managed to enhance soil nutrients and maintain soil moisture. Even as the phase of annual crops is persisting, the selection of trees and bushes for the woodland stages begins, resource stocking for the future. As the trees shade the crops, the open field converts to a perennial forest. Tailoring efforts to the local geography, the Maya cultivated the forest as a garden for thousands of years. These forest gardens, unplowed, hand cultivated, tree-dominated plots, are managed in a way that supports biodiversity and animal habitat, and sustains people by providing all their daily needs.

The El Pilar project engages with the Maya’s alliance with nature to demonstrate its potential and to support its continuity. Master forest gardeners cultivate and nurture the same precious flora and fauna that sustained their ancestors. They are helping to make El Pilar the living museum of

the Maya legacy by challenging local and international visitors to learn about and experience the flora and fauna that the ancient Maya understood and the living Maya still recall and practice. As the expansion of Western land use strategies reduce the extent of the forest, living museums like El Pilar, provide places for connections.

Archaeology Under the Canopy: A Model for a Living Museum

As the largest ancient Maya civic center in the Belize River area, El Pilar (Fig. 3) dominates the escarpment at the ecotone between the eastern valley plains and the rugged limestone ridges and hills west to Tikal. The management plan for El Pilar is based on the development of principles that will provide a link to the ancient Maya forest gardens, framing the ancient architecture by the forest itself. *Archaeology Under the Canopy* is a management philosophy as a complementary model to standard cleared temples, and sets an example for ancient forested sites around the world.

Archaeology Under the Canopy recognizes the forest as an equal and integral element in Maya archeological sites. The clearing and replacement of the forest with manicured lawns is the conventional approach to feature ancient monuments, and this is also the source of deterioration. Clearing ancient monuments exposes them to wind, rain, and acid-producing biofilms (Perry et al. 2003) that over time results in extensive damage to the surface fabric of the architecture (Larios 2005; 2009). The past half century of accelerated tourism development has also put the ancient architecture at risk (Fig. 4) and it distorts the picture of ancient Maya history, separating the natural setting from the temples (Fig. 2).



Figure 4. Southern Acropolis of Tikal 2012 and 1972. *Courtesy of the MesoAmerican Research Center.*

The forest surrounding these monuments are the vestiges of the ancient Maya gardens, the result of a co-creative historical process between humans and nature that extends back eight millennia to the agricultural pioneers of the Maya forest region (Ford and Nigh 2015). Ancient structures starkly revealed, without the forest, presents a distorted image of Maya civilization. The complementary objective of *Archaeology Under the Canopy* is to introduce monuments in the context of the forest that historically sustained the ancient Maya, evident in the traditional Maya world today (Ford and Havrda 2006; Ford and Knapp 2014). Embedding the monuments in their surrounding environment preserves the integrity of structures by virtue of the shade of the trees that has protected them over the centuries.

The El Pilar Archaeological Reserve for Maya Flora and Fauna is innovating this new way to manage and present the ancient Maya cities, practicing the principles of *Archaeology Under the Canopy* as part of the reserve's adaptive management plan. This novel style of presentation offers visitors an unique experience: monuments embraced by the forest, incorporating the foliage as

much as the ancient Maya city itself. This conjures an atmosphere of mystery and discovery while honoring the importance of the forest biodiversity (Fig. 5). This is evident at the excavated and consolidated monuments as well as house site, Tzunu'un (Fig. 5). Framing both the temples and the houses within the context of the forest honors the cultural heritage of Maya forest gardening and provides insight into the complexities of Maya life. People can see architecture of the temples and an intimate Maya home that balance cultural values. Visitors are invited to learn, explore, and expand their understanding toward the important role the populace of farmers played in developing the Maya and managing the forest as a garden.



Figure 5. Upper Photo: Tzunu'un, the Maya House in its Forest Gardens. Credit: Macduff Everton. Lower Left: Pilar Poniente Framed by the Maya Forest and Lower Right: Plaza Jobo, H'mena El Pilar, Enveloped by the Maya forest. *Courtesy of the MesoAmerican Research Center.*

The Way Forward: The Maya Forest as a Garden for El Pilar

The El Pilar Archaeological Reserve for Maya Flora and Fauna is a living museum where the ancient Maya architecture is managed in the natural setting of the tropical forest. The conservation, sustainability, and development converge as the fieldwork at El Pilar has moved forward with local collaborative partners and an international interdisciplinary science team who together have helped to develop focused education programs within the community. This research and development has explicitly built mutual ties with diverse communities, and formed interdisciplinary teams of scholars to examine the past together so as to understand the dynamic Maya forest as a garden. This base established a platform that inspired governments to create a continuous reserve that features the monuments in the context of the forest. *Archaeology Under the Canopy* positions nature as the heart of Maya culture. As a core of the reserve's adaptive management plan, El Pilar offers an original style of presentation and an unique visitor experience, one that invites them to ponder the past and consider the future. This management strategy is a model for ancient Maya presentation, acknowledging the native environment and traditional forest gardeners as critical components of the Maya world. The monuments of El Pilar, and for that matter all Maya centers, are surrounded by feral forest gardens that once were cultivated, a temporal historical product of the relationship between humans and nature. Ancient structures without the forest present an incomplete image of ancient Maya civilization.

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Biographical Notes

Anabel Ford's focus on understanding the ancient Maya landscape has grown and branched to address diverse themes from detailed investigation of architecture to environment. Tracking economic and spatial patterns of the Maya, she found the major center of El Pilar in 1983, which is now a binational reserve in Belize and Guatemala. Her current fieldwork is LiDAR validation with archaeological survey at El Pilar. Relevant to current concerns, Dr. Ford's work demonstrates that the Maya were able to prosper over millennia with a distinctly local relationship to the tropical environment of the Maya forest garden, showcased at El Pilar.