

National Archaeological Park TAK'ALIK AB'AJ

World Heritage Nomination

Republic of Guatemala / Ministry of Culture and Sports



TAK'ALIK
AB'AJ



PARQUE ARQUEOLÓGICO NACIONAL



PREFACE

Guatemala has heritage that dates back 3,000 years of cultural history. Our prehispanic cultures left a legacy of tangible cultural property and non-material manifestations that still exist and make up part of our identity and sense of belonging as Guatemalans.

Since the beginning of the colonial period, local cultures fused with the Iberian cultures, creating a cultural syncretism that transcends to new ways of thinking, sensory manifestations, and material elements in all areas of the arts, creating a new identity towards independent life.

During the republican period, we recognize ourselves as a nation in which we live together and recognize our differences, a multicultural and multilingual nation in a shared physical territory which doesn't drift away from its origins, on the contrary, we value and are proud of our roots, as we recognize the ancestral legacy that inspires our new Guatemala in modern times.

The merging and legacy of the ancient prehispanic cultures represents a starting point that connects the past and the present, still alive in the spirituality and practices of the indigenous population. This substantiates the nomination of the National Archaeological Park Tak'alik Ab'aj as World Heritage.

Tak'alik Ab'aj represents a sacred place that through the structures and existing materials, allows the historical continuity of the first settlements and how they adapted to different historical moments to live on throughout history.

The Archaeological Park Tak'alik Ab'aj exceptionally represents how ancient cities combined political, cultural, astronomical, and religious subjects in order to survive. Up until now, this ancient city is the only city of its kind in Guatemala, which shows a historical continuity without any violent or imposing event, but an adaptation to the historical moments they had to face.

The historical continuity and link between the past and present make Tak'alik Ab'aj an area of exceptional universal value that deserves to be recognized as a legacy for humanity from Guatemala.

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Minister of Culture and Sports
Republic of Guatemala

National Archaeological Park

TAK'ALIK AB'AJ

World Heritage Nomination 2021

Republic of Guatemala / Ministry of Culture and Sports



GOBIERNO *de*
GUATEMALA
DR. ALEJANDRO GIAMMATTEI

MINISTERIO
DE CULTURA
Y DEPORTES



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ACRONYMS

PANTA	<i>National Archaeological Park Tak'alik Ab'aj</i>
IDAEH	<i>Institute of Anthropology and History</i>
MICUDE	<i>Ministry of Culture and Sports</i>
CONAP	<i>National Council of Protected Areas</i>
COLORES	<i>Corridor of Parrots and Reserves</i>
CODEDE	<i>Department Council of Development</i>
SEPRONA	<i>Secretariat of Nature Protection</i>
MARN	<i>Ministry of Environmental and Natural Resources</i>
DIGARN	<i>General Board of Environmental Management and Natural Resources</i>
POA	<i>Annual Operative Plan</i>
INGUAT	<i>Institute of Guatemalan Tourism</i>
SEGEPLAN	<i>General Secretariat of Planning</i>
DISETUR	<i>Board of Tourist Security</i>
SIGAP	<i>Guatemalan System of Protected Areas</i>

EXECUTIVE SUMMARY

State Party

Guatemala

State, Province or Region Municipality of El Asintal,

Department of Retalhuleu

Name of Property

National Archaeological Park Tak'alik Ab'aj

Geographical coordinates to the nearest second

The archaeological site Tak'alik Ab'aj is located in the municipality of El Asintal, in the department of Retalhuleu. It is located 600 m above sea level on the hillslopes of the volcanic chain that runs through the South Coast between coordinates N:14°37'26" and 14°39'36" y W: 91°43'39" and 91°44'47".

Textual description of the boundary(ies) of the nominated property

Boundaries:

To the South:

Private property Santa Margarita, next to Interfinca path "Calle de Pan"

To the West:

Private property Santa Margarita, next to Interfinca path "Calle de Pan"

To the North:

Private property Santa Margarita

To the East:

Private property Santa Margarita, next to paved Road CA2 Occ.

The nominated property, National Archaeological Park Tak'alik Ab'aj

(PANTA), with its entire extension of 15.38 ha is situated within the private property Santa Margarita.

The whole archaeological site has an extension of 650 ha, distributed among the private properties Santa Margarita, San Isidro Piedra Parada, Buenos Aires, San Elías and Montes Elíseos, which for decades have been an eminent zone of single crops (coffee, rubber, and sugar-cane). Private property Buenos Aires is declared as Private Natural Reserve; Buenos Aires and Montes Elíseos are affiliated to Rainforest Alliance and their products distinguished with the seal of Green Deal. Private Natural Reserves a management category of the National System of Protected Areas (SIGAP) of the National Council of Protected Areas (CONAP) and have their respective management plan with corresponding established agricultural activities amicable to the natural environment; this by its nature contribute to the protection and conservation of the archaeological site and the PANTA. The remaining properties are engaging in the process to be declared as Private Natural Reserves.

A4 or A3 size map(s) of the nominated property, showing boundaries and buffer zone (if present)

Maps attached.

Criteria under which property is nominated

- (i) represent a masterpiece of human creative genius;
- (ii) exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design;
- (iii) bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared;
- (iv) be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;
- (vi) be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance. (The Committee considers that this criterion should preferably be used in conjunction with other criteria)

Draft Statement of Outstanding Universal Value

(text should clarify what is considered to be the Outstanding Universal Value embodied by the nominated property, approximately 1-2 page format)

Brief synthesis

The ancient city of Tak'alik Ab'aj has an extension of 15.38 ha, and it's located at the piedmont of the Pacific littoral of Guatemala. Its history of over 1700 years, from 800 BC to 900 AD is bound to the special geographic condition of its location, positioned in the strategic landscape on the hillslopes of the Sierra Madre volcanic chain running parallel to the Pacific Coast of southeastern Mesoamerica.

The continuity of its development over many centuries is a cultural mirror where important events of the history of Mesoamerica are reflected, as the dominance of the ancient Olmec civilization in Middle Preclassic times (800-350 BC), followed -after a significant period of transition (100-150 BC)- by the emergence of the Early Mayan culture during the Late Preclassic (100 BC-150 AD).

The commercial long-distance trade route and relations management capacity, played an important role for the economical and cultural development. The contact among different people and cultures eased the flow and appropriation of universal thought, which interestingly was shared, but creatively re-invented in a local version, building the local identity as well as sharing it with others, within a wider concept of cultural dominance.

It appears that this scenario was appropriate for the emergence of a chiefdom at the site and the region, and the precocious development of an urban, technological, and artistic program that acts as an "ambassador" for the unique and precocious South Pacific cultural development.

To this day, this city is a sacred place visited by the different indigenous groups who perpetuate their rituals according to their calendars established centuries ago.

Criterion (i): Tak'alik Ab'aj distinguishes itself from other pre-Columbian cities in Mesoamerica for its extraordinary quantity and diversity of Preclassic stone sculpture styles and sophisticated jadeite artifacts for early powerful rulers.

This continuum reflects the transition from Olmec towards Maya cultural expressions, providing a unique opportunity to observe the gradual change of thought behind the artisans' chisel, thus documenting that these phenomena was a gradual evolutionary process generated by the deliberated decision and plan of these early rulers to undertake these changes.

Criterion (ii): The ancient architects used and slightly modified the original terraced landscape descending from the volcanic piedmont to the coastal plains, in order to adapt a particular sophisticated urban design based on ancestral cosmogonic precepts as the cosmogram (four cardinal corner sides with the axis mundi center point), combined with astronomic orientations. Tak'alik Ab'aj is an exponent par excellence of this architectonic layout, which with the integration of a conspicuous sculptural program, created the ritual scenario for the public performance of the Preclassic incipient chiefdom.

Criterion (iii): During Middle and Late Preclassic the ancient astronomers at Tak'alik Ab'aj were performing important observations of the voyage of the constellations in the nocturnal sky and the daily course of the sun, leaving an amazing testimony of their record, as historic register symbolized in sculpture alignments.

Criterion (iv): What calls most powerful the attention in Tak'alik Ab'aj is the display of sculptures of different styles placed in front of the facades or top of the buildings. The Central Group of Tak'alik Ab'aj displays a composition of multiple sculptural styles of the monuments developed over a span of almost a millennium. The Olmec style monuments were extracted from its original placement to form part of this historic façade or “open air museum” in the Late Preclassic. The act of re-use and re-assemblage and combination of sculptures of different styles and previous epochs from the end of Late Preclassic and later on for public display in the architectonic scenarios, indicate the intention to resume and evoke the past and create a historic discourse, particularly in the advent of times of crisis.

Criterion (vi): Tak'alik Ab'aj in the imaginary of the indigenous people has been recognized and identified as sacred place of the ancestors and specific spots yielding special energy, which are designated as locations for ritual performance.

Integrity

Due to the particular history of the ancient city Tak'alik Ab'aj, which was abandoned around 900 AD and hence was covered by dense vegetation, the physical integrity was ensured for the centuries to come. Until modern times the shifting trends in agriculture, from banana to coffee plantations and currently combined with rubber, have not caused a significant impact, as these crops do not reach the archaeological levels in the ground. As well, the eruption in 1902 of Sta. María volcano, which bore the volcano Santiaguito, added an additional protective layer on the ground under which the ancient ruins were hidden.

The wealth of evidences and information of two and a half decades all year round work provides the unique opportunity to be able to correlate the archaeological stratigraphy with architecture, sculpture, ceramic, lapidary art, lithic tools, astronomy, urban design, landscape modifications and water management infrastructure, and cross check the data, as well to accomplish intense and profound study of each, which has produced a singular solid base for the most assertive archaeological interpretation and restoration.

Authenticity

Due to the described special pristine conditions of the site and wealth of examples of each of the multiple diverse cultural remains, their characterizing particular attributes as well testify a high degree of intactness in form and design (as the buildings and sculpture), no alteration in materials and substance, use and function, and traditions, techniques and management systems (as the building and sculpting traditions, lapidary and lithic production techniques, and water supply and evacuation engineering), unless the modifications are product of the proper historic development, as for example the change through time in style (Olmec to Maya), form, location (re-location) and use (re-use) (sculptures in architectonic settings).

Requirements for protection and management

The cited donation of land to the Guatemalan State and mentioned legal framework, particularly the Declaration as National Heritage, and mainly the existence of the administrative and operative facility provided by the institution of the National Archaeological Park Tak'alik Ab'aj, dependence of the Ministry of Culture and Sports, under the administration of the Head Office of Cultural and Natural Heritage/Institute of Anthropology and History (IDAEH), with its annually assigned budget, and well organized operative units during 33 years has been the guarantee for its thoughtful research, careful designed conservation policies and integral maintenance program, as well as visitors service.

The current Management Plan 2021-2025 is adapted to the condition of candidacy for nomination and the elaboration of instruments to optimize operative quality, stability and capacity to protect and conserve the cultural heritage bearing the universal exceptional values constituting the proposed criteria i, ii, iii, iv, vi, and to strengthen the sense of belonging and identity of the local populations, particularly children with a socializing program.

Name and contact information of official local institution/agency

Organization:

Vice-Ministry of Cultural and Natural Heritage, Ministry of Culture and Sports

E-mail:

mrmaldonados@mcd.gob.gt

Address:

6A Calle, Cdad. de Guatemala 01001

Web address:

<http://mcd.gob.gt>

Tel: Fax:

(502) 22322107



Identification of the Property

Identification of the Property

1.a. Country

Guatemala

1.b. Region

Municipality of El Asintal, Department of Retalhuleu

1.c. Name of Property

National Archaeological Park Tak'alik Ab'aj

1.d. Geographical coordinates to the nearest second

The archaeological site Tak'alik Ab'aj is in the municipality of El Asintal, in the department of Retalhuleu. It is located 600 m above sea level on the hillslopes of the volcanic chain that runs through the South Coast between coordinates N:14°37'26" and 14°39'36" y W: 91°43'39" and 91°44'47".

1.e Maps, and plans if available, showing boundary of area proposed for inscription and of any buffer zone



Fig. 1. Location of Guatemala

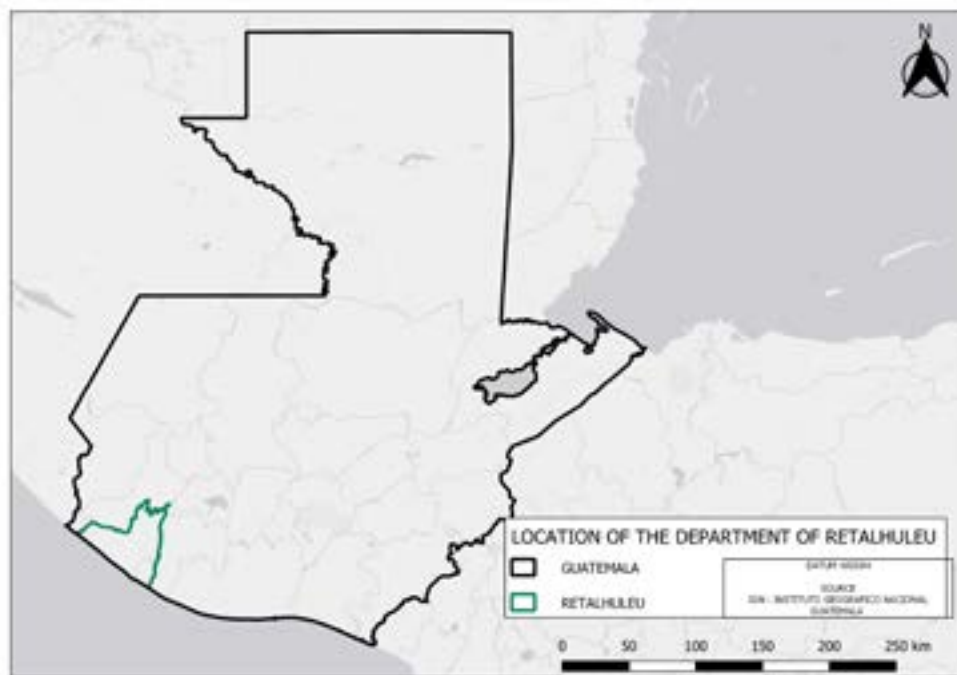


Fig. 2 Location of Retalhuleu

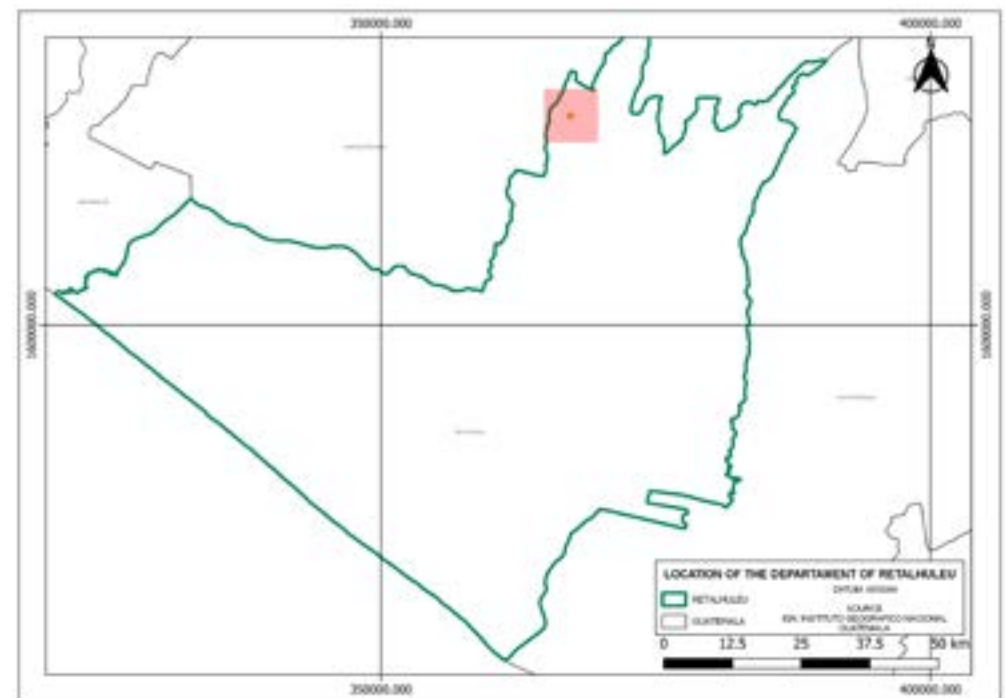


Fig. 3. Location of Tak'alik Ab'aj in the Municipality of El Asintal



Fig. 4. Map of the Archaeological Site and Nominated Property

1.f Area of nominated property (ha.) and proposed buffer zone (ha.)

Area of nominated property	14.88 ha
(Buffer zone) Preliminary Protection Strip	0.50 ha
Total (PANTA)	15.38 ha

Background

The neighboring land next to the National Archaeological Park Tak'alik Ab'aj is property of Finca Santa Margarita and their landowners donated an extension of land (15.38 ha) to the State of Guatemala for the creation of the Archaeological Park, so the external area of the land is a private property (634.62 ha). The whole archaeological site has an extension of 650 ha and is distributed among the private properties of Santa Margarita, San Isidro Piedra Parada, Buenos Aires, San Elías and Montes Elíseos, which for decades have been an eminent zone of single crops (coffee, rubber, and sugar-cane). The extension area of 650 ha, has been declared National Cultural Heritage and this status has its own regulations, representing a sensitive category of legal protection, which by its nature contributes to the protection and conservation of the PANTA.

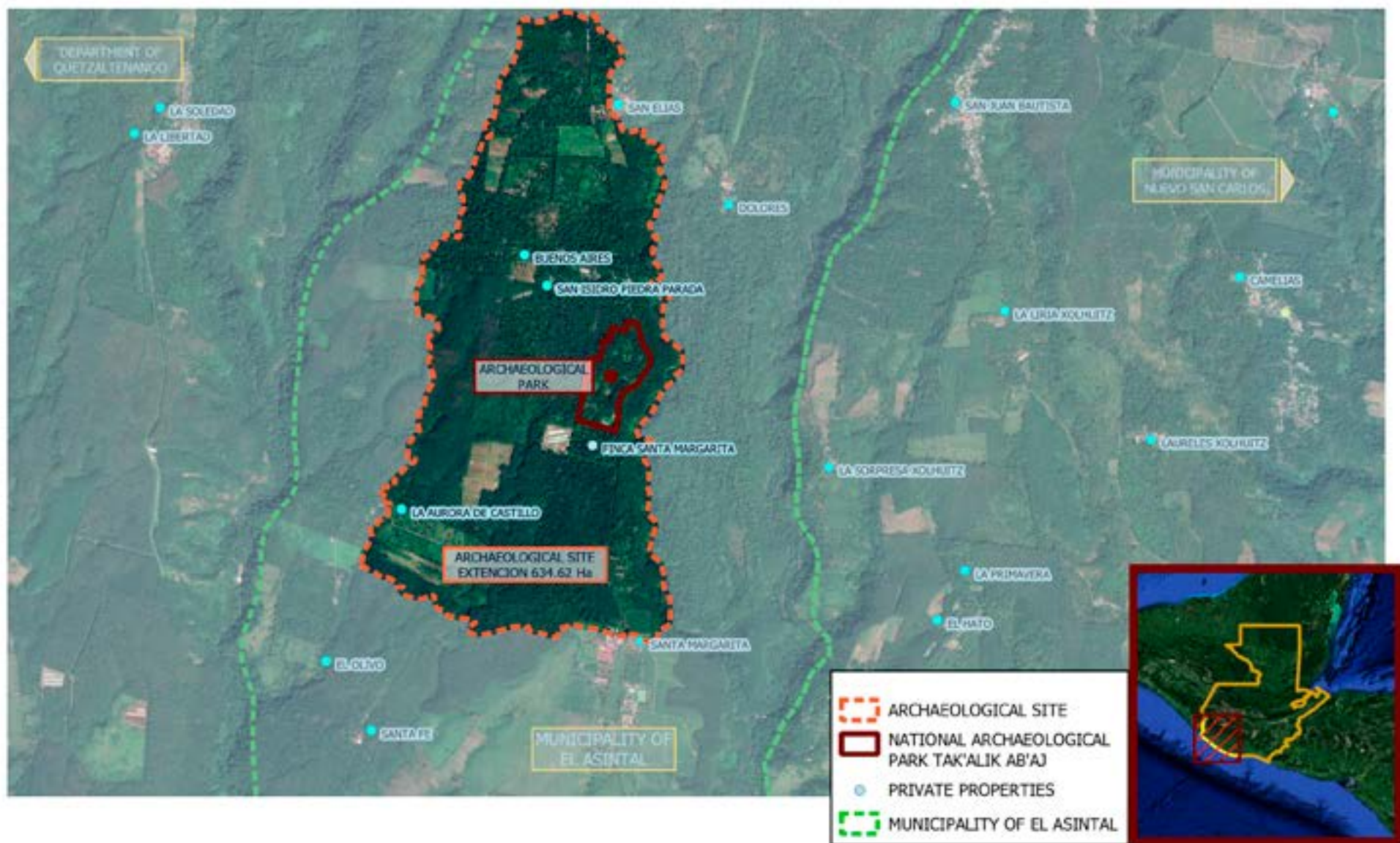


Fig. 5. Aerial view of the location of Archaeological Site and the nominated property

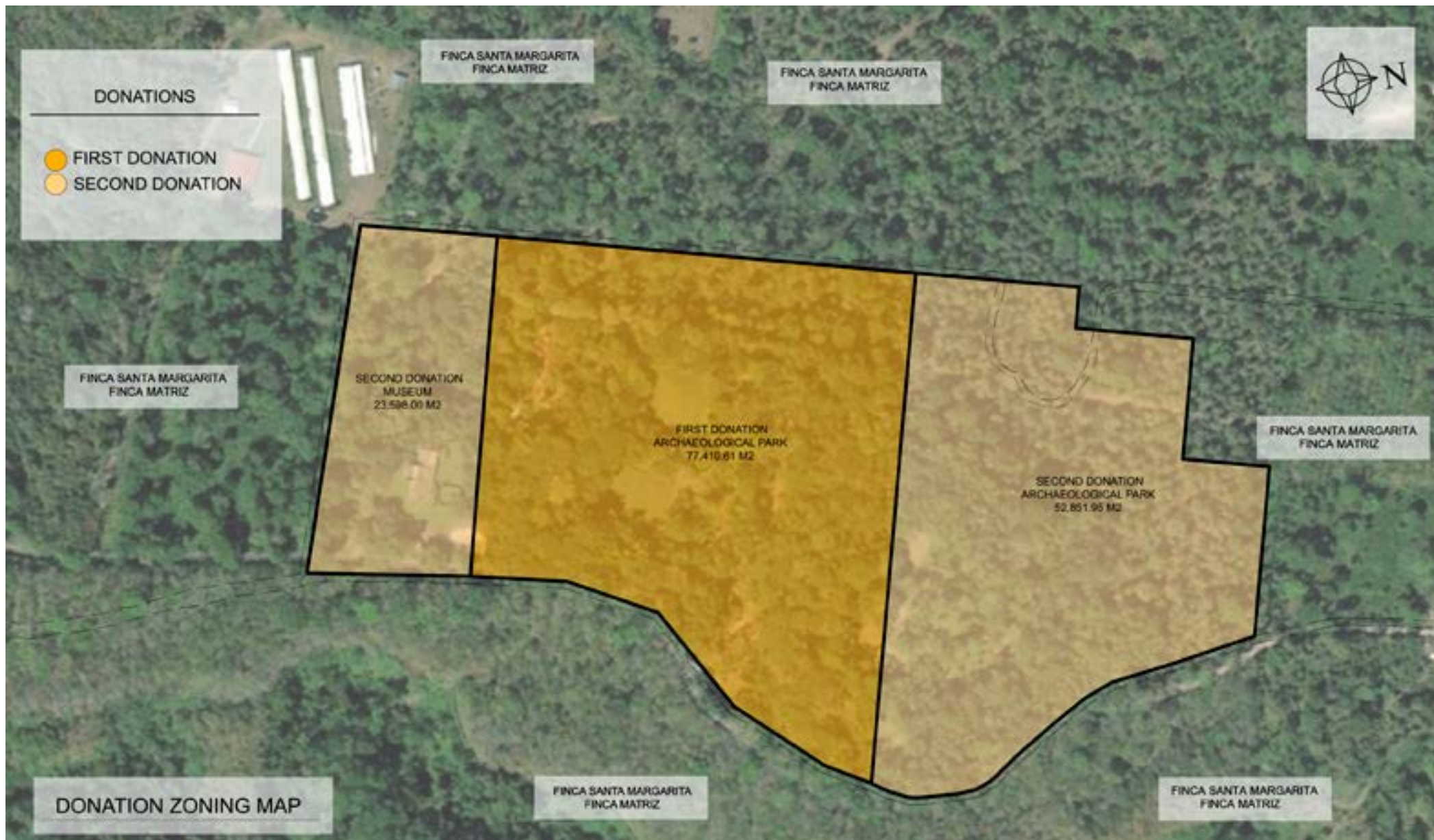


Fig. 6. Map referring the donation of land in favor of the National Archaeological Park Tak'alik Ab'aj

The park administration has worked closely with these landowners on previous occasions to determine the possibility of implementing a park Buffer Zone on their property, nonetheless, results have been unsuccessful and the owners are not able to assume the commitment of the declaration of a buffer zone.

In the absence of the opportunity for the implementation of the Buffer Zone on the outside of the nominated property and while the State of Guatemala seeks a definitive solution, it is proposed to implement a Preliminary Protection Strip on the inside of the nominated property. This barrier will serve as a conservation area and double protection to the cultural and natural heritage as well as the integrity and authenticity of the Exceptional Universal Values of the nominated property. The importance of this belt is:

- a) To protect the Park and avoid risks of environmental or social damage.
- b) Avoid negative external impact from inside.
- c) Absorb the micro-climatic conditions from the Core Zone and Natural Zone.
- d) Promote the setting of a natural barrier that contributes to the biological conservation inside the Park.

Preliminary Protection Strip

The design of the Preliminary Protection Strip of the park includes the live barrier created with the “Giant” plant with 1,779 linear meters, the metallic mesh limit of 0.15 m into the area of the park with 1,958 linear meters with an area of 299.70 m² and a 3-meter-wide land strip and 1,668 linear meters with an area of 5,003.00 m². The total area of the strip is 5,302.70 m² which is 3.5% (0.5 ha) of the total area of the 153,757.12 m² of the park; with which the extension of the nominated property will now be of 14.88 ha.

The 3 m wide land strip will be distributed in the following way: 0.50 m adjacent to the perimetral mesh will not have vegetation (except areas that already have plants), which will be used to monitor and maintain the perimetral mesh as a fire-stopping bracket and for routine safety monitoring by the Surveillance Unit. The remaining area of the strip (2.50 m) will be planted with *Swinglea glutinosa* of the Rutaceae family in areas with trees or without vegetation. The areas that contain the infrastructure of the park built less than three (3) meters of the perimetral mesh will not be affected by the Preliminary Protection Strip, just like the gateways or exposed archeological remains.

The Preliminary Protection Strip will go over two exposed archaeological areas: the south side of the Structure 87 and the southeast corner of the Structure 73. The Structure 87 named “Plaza Hundida” (In English: Sunken Plaza), is an area of 40 x 40 m and 1 m deep; cobble stone floors at the bottom and a perimetral wall with a central staircase on all four sides, made with pebble stones; nonetheless, the south side is not exposed as the “Calle del Pan” (In English: Bread Street) goes over it. Structure 73 called “Nin Ja” (In English: Big House, in Mam language), is a residential area on a lower 0.50 m high platform, covered with pebbles on its four sides. To preserve the remains of the cultural heritage inside the nominated property, such spaces will be reburied -like the ‘Juego de Pelota’, In English: Ball Court) with a layer of clay to implement the Preliminary Protection Strip.

To ensure the existence and development of the Preliminary Protection Strip and the protection of the cultural and natural heritage in it, the following activities will not be allowed: extracting any cultural or natural object, establishing human settlements, sport or survival activities, camping, throwing organic or inorganic solids and wastewater, using fire or burning objects, fireworks and any explosive or inflammable material, archaeological or any form of exploring in the area without the appropriate authorization.

The administration, development, protection, monitoring and maintenance of the Preliminary Protection Strip will be managed by the Ecological Unit, which will oversee issuing permits for activities in the area.

Besides, to develop and reach the goals of the Preliminary Protection Strip, the following activities will be conducted: reforesting areas without vegetation, caring for the areas with vegetation, and sustainable forest management. There will be a constant monitoring and maintenance to the live barriers and mesh. A controlled use of the belt will guarantee the protection and preservation of the nominated property.

The state of Guatemala has called for international assistance through a request letter submitted to ICOMOS International, in order to have the expertise and guidance of an expert on buffer zones which can provide an alternative and accurate solution, in case the proposed Preliminary Protection Strip is not enough to guarantee the protection of the nominated property.

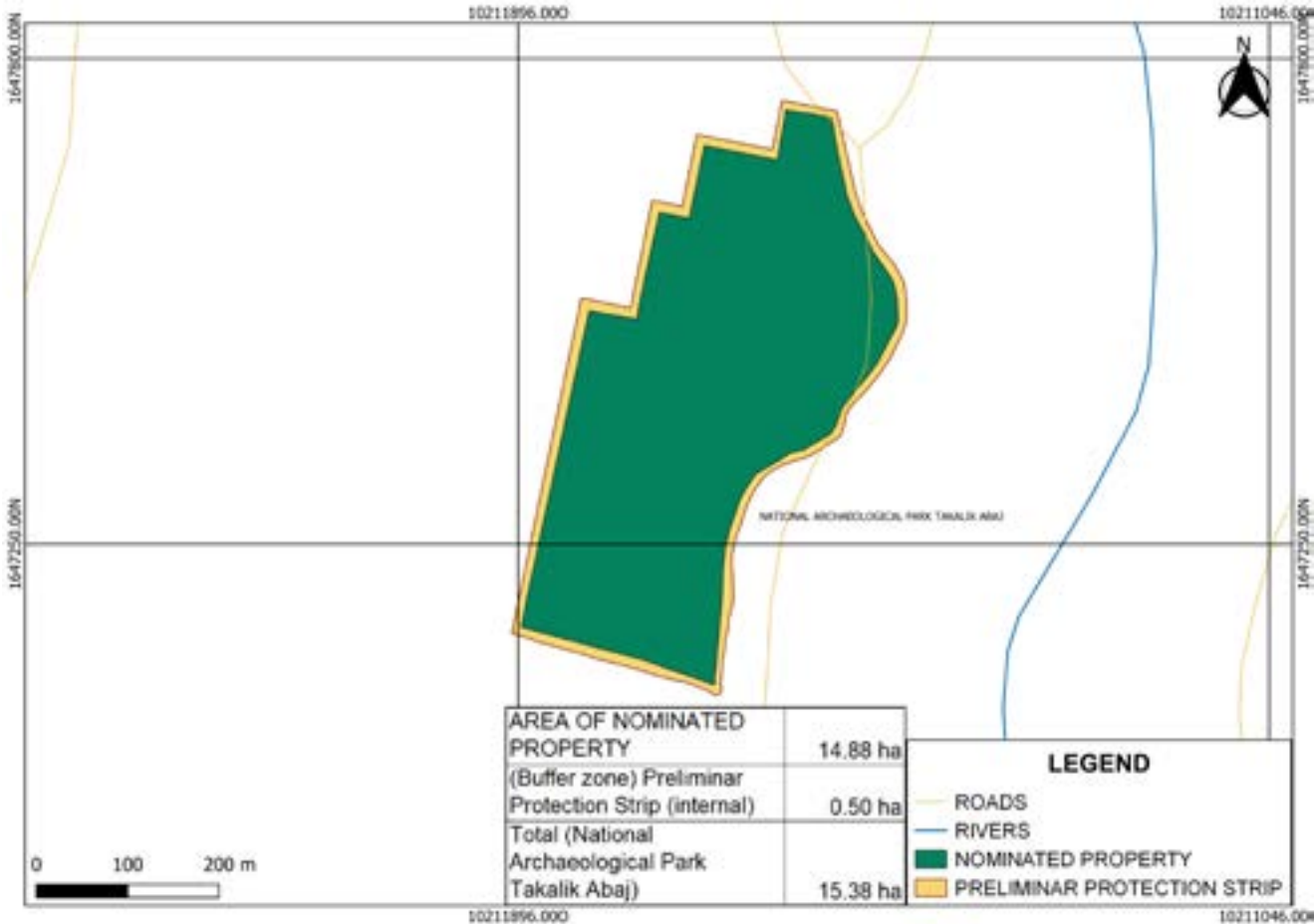


Fig. 7. Map of the nominated property and Preliminary Protection Strip



Description

Description

2.a Description of property

Looking from half height of the volcanic piedmont toward the ocean: The city and the landscape

The archaeological site Tak'alik Ab'aj is located in the Municipality of El Asintal, Department of Retalhuleu, Guatemala, at an altitude of 600 m over the sea level on the well-watered flanks of the mountainous volcanic chain that runs along the Pacific littoral of Guatemala. It occupies a strategic point where a natural pass cuts through the mountains and leads up to the highlands. The characteristic landscape of the piedmont is one of continual descent toward the coastal plain, the slopes traversed by numerous rivers which drain the waters of the highlands to finally empty into the Pacific Ocean.



Fig. 8. Natural landscape that borders the
Tak'alik Ab'aj archaeological site

Due to its geographic and topographic traits, the grounds are extremely productive as some of its components are a variety of organic materials; up to this moment the following grounds have been classified: Chócola, Chuva, Ixt'an, Ixtán Franco Limoso, Mazatenango, Retalhuleu, and Suchitepéquez. The different types of grounds are part of an extensive water system that includes rivers, creeks, and water sources, being the Nimá and Ixchayá rivers the closest to the site.

The combination of all these elements give life to a subtropical humid forrest, in which many endemic species are present. The ruins of Tak'alik Ab'aj are embedded in a most precious natural setting of the native warm and humid sub-tropical forest (see Annex II.14 p. 21). The National Archaeological Park Tak'alik Ab'aj is working since its beginnings in the gradual re-creation of the original biodiversity collecting species from the small patches of this forest which have survived in the deep ravines of the rivers; the native plants have been multiplied in nurseries and re-introduced in the nominated property. Currently in the extension of the 15.38 ha of the nominated property are replenishing a total of 214 species of flora classified in 19 species recognized before and during the creation of the National Project since 1987, 13 exotic species which its presence is due to the dynamic of agricultural plantations, 79 species proper of the natural ecosystems which its context is framed within the approach included in the ecology program, 28 species which still require the collection of samples and their taxonomical analysis in an herbarium, 43 species of herbaceous stem which have been regenerated by the ecology program, 15 species of exotic herbaceous plants present in the area due to the agricultural crops, and other 17 pre-Columbian species of bushes and herbaceous plants (see Annex IV.1). As well as 13 species of fauna in the Wildlife

Refuge with a total of 80 animals (see Annex IV.2) and 76 species of fauna (including mammals, reptiles and birds) living freely (see Annex IV.3 and IV.4). The Wildlife Refuge implements the species adaptation program so that animals can go back to wildlife, starting on 2020 with the release of 16 animals of 8 different species in PANTA (see Annex IV.2).



Fig. 9. *Campephilus guatemalensis*



Fig. 10. *Chiroxiphia linearis*



Fig. 11 *Buteo magnirostris*

The recovery of the native forest almost extinct in this region makes it a precious island in an ocean of the traditional coffee, rubber and sugar plantations, and gives the landscape of the Park its unique character. During the first three months of every year the intense green of the vegetation reign is highlighted by the colors of a parade of the orchids. In January the orange color of the flowering orchid “Esquipulas”, in February the purple color of the “Candelaria” orchid, in March the almost white, pale lilac blossoms of the orchid “Vara de San José”, and in November the yellow and pale purple of the orchid “Cola de ardilla”, which tell goodbye until the next year to come.

This natural environment has become a shelter for many native animals of this region, some of them in danger of extinction. The species the visitor can get acquainted with are the Crocodile, Turtles, Kinkajou, Raccoon, Coati, Spider Monkey, Porcupine, Grey Fox, Wild Boar, Deer and the bird Caracaras. This natural sanctuary has become also a paradise for many birds, among them: Yellow-napped and Green Parrots, Collared Aracari, similar to a Toucan, and Mot-Mot. These regional endemic species can be observed only at specific times of the year; as well 5 species of migratory birds. Bird watchers consider the Park as a natural sanctuary since, besides other qualities, it gives them the opportunity to enjoy the sound and the colors of the birds. Since 2014, the Park adjoined the project Corridor of Parrots and Reserves supporting the monitoring of the Yellow-napped parrot in the Park.

Inventory of free birds

Scientific Name

Cucharón	Ramphastos sulfuratus
Loro	Aratinga holochlora
Colibrí	Archilochus colubris
Gavilán pollero	Buteo magnirostris
Urraca	Calocotta
Censontle	Turdus grayi
Chacha	Ortalis ruficauda
Zanate	
Chatía	Pitangus sulphuratus
Guas selvático	Micrastur semitorquatus
Buitre negro	Coragyps atratus
Querreque o Cara cara	Poliborus plancas
Lechuza de cola larga	Ciccaba virgata
Garza	
Clarinero	Quiscalus mexicanus
Jut jut (Mot-mot)	Eumomota superciliosa
Palomitas espumuy	
Perico	Aratinca chloroptera
Cotorra	Psittacioae
Chocoyo	
Señorita	
Paloma Llorona	
Paloma Huatalera	
Pijuy	Crolohpaga salsirostris
Tortola	Zenaida auriculata
Chorcha o Chiltote	
Aurora	
Gordo	
Chompipita	
Chocayo	

Choreque	
Pájato carpintero	Dryocopus lineatus
Chiltote pecho rojo	
Tijereta	
Ruiseñor	
Búho común	Bubo virginianus
Codorniz	Colinus virginianus
Loro nuca amarilla	Amazona ochrocephala

In order to present the plants verified by the archaeological record to the visitors, current efforts are already underway to strengthen the “Archaeobotanic Garden”; also with the objective to avoid that some plants become extinct in the region. The Park’s pedagogic labor is to present the special and characteristic archaeological world of the piedmont corridor along the Pacific littoral, inseparably framed by its natural environment, in order to forge the concept that past and current societies develop according to their environment. After all, this is our mother earth just as it was to our ancestors.

Inventory of migratory birds

	Scientific Name
Azacuán	Buteo swainsoni
Chuchitos de sol	
Pitz pitz	
Tordo	Molothrus bonariensis
Golondrina	Hirundu rustica

Inventory of birds in the wildlife refuge

	Scientific Name
Querreque o Cara cara	Poliborus plancas
Buitre Negro	Coragyps atratus
Guacamayas	Ara macao
Loro nuca amarilla	

Edible Plant Inventory

	Scientific Name
Jengibre	Zingiber officinale
Cilantro	Eryngium foetidum
Apazote	Chenopodium ambrosioides
Chiltepe	Capsicum annum var. glabriusculum
Hierba Mora	Solanum nigrum
Chipilín	Crotalaria longirostrata
Ixpulul	
Chile Santo Domingo	
Quixtan	solanum wendlandii
Bledo	amaranthus polygonoides
Bushnay	Spathiphyllum blandum
Miltomate silvestre	Solanum torvum
Quilete dulce	lycianthes synanthera
Girasol silvestre	Thitonia diversifolia
Malanga	Xanthosoma sagittifolium
Chufle Calathea	macrosepala K. Schum
Tepejilote	carludovica palmata
Chaya	cnidoscolus aconitifolius
Yuca	Manihot esculenta
Pacaya	chamaedorea tepejilote
Güisquil	Sechium edule
Izote	Yucca gigantea Lem

Quequexte
Cashcamote
Hoja de Mashan
Yayte
Ujuxte
Cacao

Xanthosoma sp.
Ipomoea batatas
Calathea lutea.
Gliricidia sepium
Brosimum alicastrum
Theobroma cacao

The inclined topography determined the way in which the ancient architects at Tak'alik Ab'aj designed the plazas and distributed the main ceremonial groups. For the construction of the site, the slopes were modified into a series of ten successive terraces covering 6.5 square kilometers (650 ha). There are four principal architectural groups, each named according to its location within the site: North, West, Central and South Groups. The area of the urban center hosts 94 buildings and 407 stone sculptures.

Medicinal Plant Inventory

Hierba de Cáncer
Calahuala
Oreja de coche
Ruda
Árnica
Jengibre
5 negritos
Mejorana
Albahaca
Verbena
Escobillo
Apazote
Chaya
Hoja de Santa Maria
Copal
Ixcanal
Palo Jiote
Chichicaste mala mujer

Binomial Name

Acalypha arvensis.
Campylonerum sp.
Elephantopus spicatus.
Ruta chalapensis L.
Buddleia americana L.
Zingiber officinale.

Ocimum basilicum L.

Sida acuta
Chenopodium ambrosioides.
cnidoscolus aconitifolius.
Piper auritum.
Himenaca L.
Acacia collinsii.
Bursera simaruba.
Urera baccifera.

This location must have been deliberately selected to enable Tak'alik Ab'aj to function as a critical link within the predominant commercial network of this region, for the site soon evolved as one of the most important economic and cultural centers of pre-Columbian times. The extraordinary wealth of Tak'alik Ab'aj was certainly due to its vital role in the long-distance commercial exchange system which allowed the trade of products and raw materials to flow back and forth, extending as far as the Isthmus of Tehuantepec at one extreme to El Salvador at the other. Ideas and customs traveled along with these merchants, resulting in extensively shared communication and cultural diffusion. This is testified in the diversity of sculptural styles which congregate at this place, as no other site of Mesoamerica does. There are the Olmec, Maya and Zoomorphic Representation, Potbelly, "Coastal" and "Local" style, and some cases where poor conservation has not allowed to define stylistic affiliation; as well there are artifacts analogous to distant cities and sites, as Tlatilco, Monte Alban, Cerro de Las Mesas and Chinkultic in Mexico; Kaminaljuyu and Cival in Guatemala; Chalchuapa, Ataco and Planes de Renderos in El Salvador, and La Regla and Nicoya in Costa Rica. In this historical process, Tak'alik Ab'aj functioned as a primary player and catalyst in the bridge that led from the Olmec world system into that of the Maya.

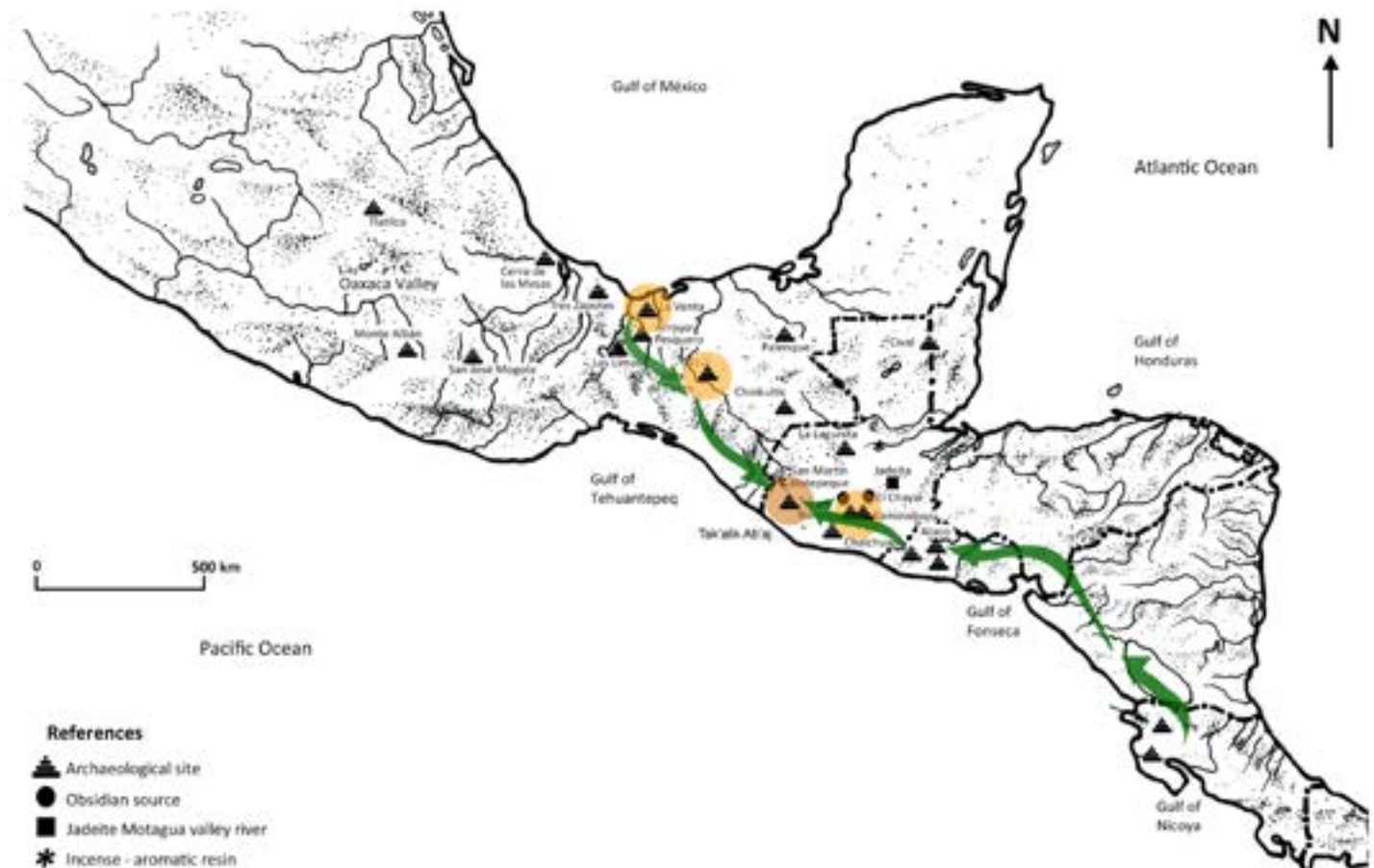


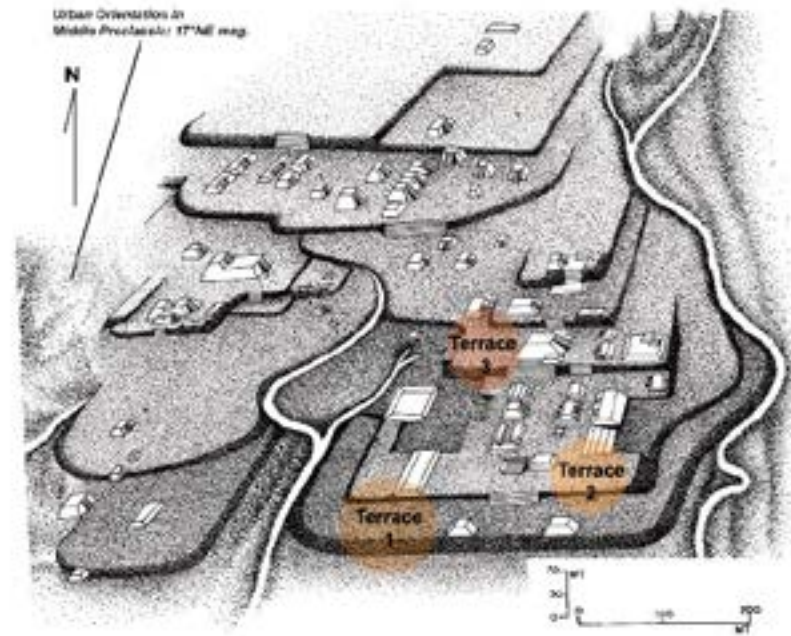
Fig. 12. Established commercial routes in the region associated with the Olmecan and Mayan worldviews

The ancient history of Tak'alik Ab'aj is one of the most fascinating of Mesoamerica. The remarkable events that affected the evolution of the cultures of the region left their traces at this site which can be found by the archaeologists in the remains of the materials left by the early inhabitants. Among the most important of these materials are the monuments sculpted in stone, the sacred buildings constructed of clay and faced with cobbles, the ceramic vessels and the stone and obsidian tools.

The study of these public works and objects allows us to follow the changes in styles and technology utilized, reflecting some of the wealth of ideas that existed in the minds of the ancient architects and artisans. These changes mark for us the different epochs in local cultural developments. The ideas conveyed by the locally produced utilitarian and artistic objects communicate how man was able to live and sustain his family, how he associated with others and organized his society, and how he understood his world.

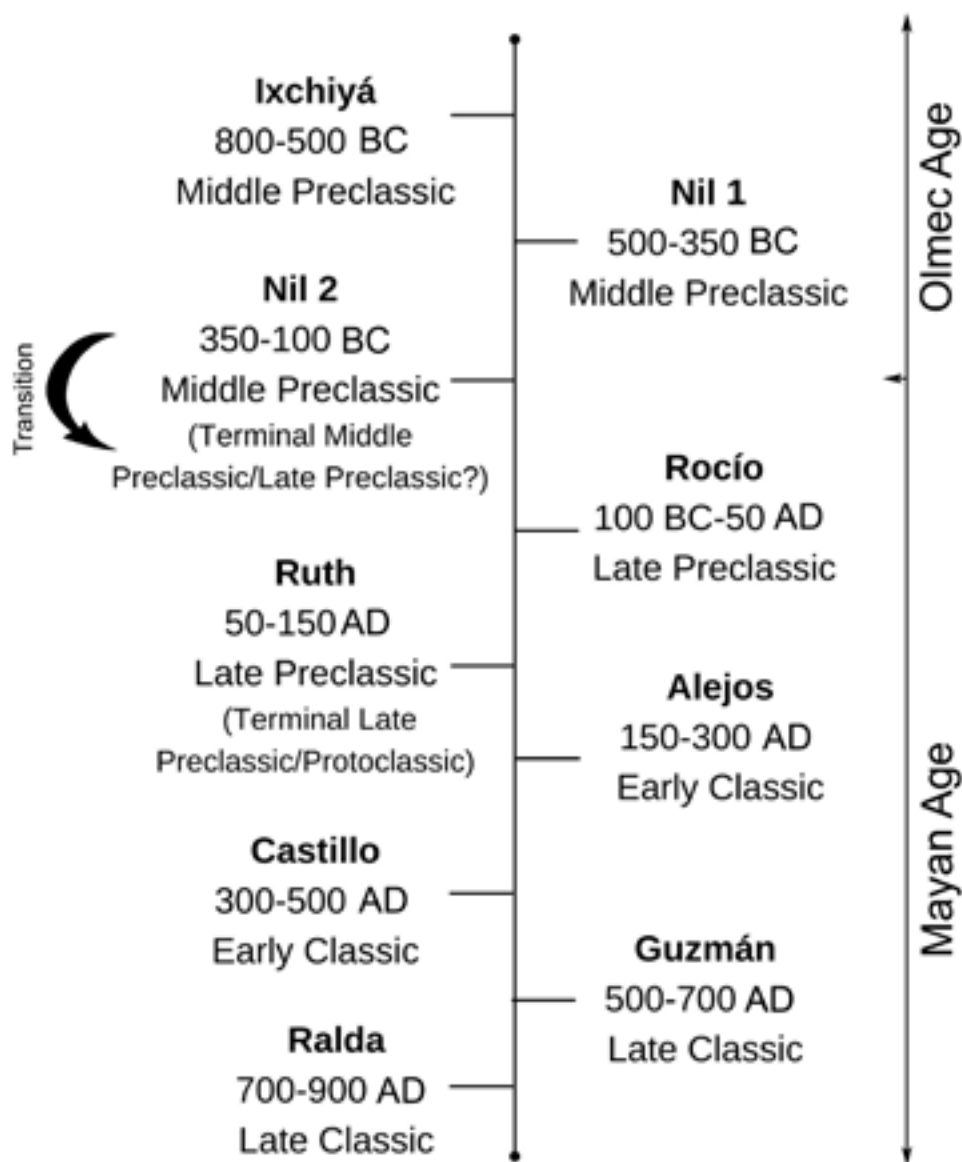
The National Archaeological Park Tak'alik Ab'aj "The Bridge City between the Olmec and Mayan World" represents a millenary cultural history of 1700 years, exceptional and unique in Mesoamerica as stage for the iconic Olmec and Maya cultural expressions; testifies the human creative genius or capacity to evolve from one cultural system to another, in the search of solutions and challenge to adapt to new historic horizons; represents a Sacred, Cultural and Natural sanctuary. To travel the long history of Tak'alik Ab'aj, it is necessary to focus on the Central Group which is part of the area that comprises the nominated property (PANTA) in Terraces 1, 2, and 3.

Fig. 13. Architectural groups inside of the Tak'alik Ab'aj archaeological site



Tak'alik Ab'aj Chronology Genealogy

Since the beginnings of the archaeological research at the National Archaeological Park Tak'alik Ab'aj, the chronological referential framework for Kaminaljuyu proposed by Shook and Popenoe de Hatch (1999) was used. The chronology developed by the National Archaeological Park Tak'alik Ab'aj is based on the ceramic studies conducted by Marion Popenoe de Hatch parallel to the excavations from 1988 to 2016. The changes proposed by Inomata et al. (2014) for the chronology of Kaminaljuyu, which affected the Tak'alik Ab'aj chronology, gave place in 2015 to a collaborative study for the revision and re-evaluation of the radiocarbon samples, anchored in the stratigraphic sequence of Tak'alik Ab'aj and the ceramic study. As a result, starting from June 2018, a new chronologic frame subject for further testing was presented. The purpose of refinement of this study is aiming towards a more precise integration in the interregional chronology framework. This new chronology 2019 substitutes the previously published one.



The chronology chart displays the 1700 years of uninterrupted cultural development of the people of the ancient city of Tak'alik Ab'aj. During Middle Preclassic, which is divided in Phase Ixchiya (800-500 BC) and Nil 1 (500-350 BC), Tak'alik Ab'aj lives its first vigorous epoch as member city of the long-distance trade route and sharing the cultural traits of the dominating Olmec civilization. With the fading of the political power of this first Mesoamerican civilization, and the abandonment of its capital La Venta in Tabasco, Veracruz, initiates at Tak'alik Ab'aj the interesting episode, Phase Nil 2, proposed as transition (350-100 BC). The archaeological record of every line of research, architecture, sculpture, ritual activity and water management, indicate change in concept, design and aesthetic canons happening in a gradual and uninterrupted manner.

Of utmost importance is the study of the local Ocosito ceramic tradition, as its undisturbed continuity indicates that there is no change of population at Tak'alik Ab'aj, moreover, its people appear to be active decision takers and actors of the described changes. It appears that the long-distance trade relations shifted towards the central highland city Kaminaljuyu. The transition leads to the development of the early Maya cultural flourishing at the beginning of Late Preclassic, its first Phase Rocío (100 BC-50 AD), with the first generation of the Early Maya style sculpture tradition, and in Phase Ruth (50-150 AD), with its second generation reaching its mature expression and most importantly the development of the Long Count system.

The precocious and dynamic development of Tak'alik Ab'aj during Middle and Late Preclassic is directly related to its involvement in the long-distance trade route. Entering the Early Classic (Phase Alejos 150-300 AD and Castillo 300-500 AD), again for geopolitical reasons, in this case the Solano ceramic tradition western highland people fighting for the control of this commercial domain, occupy Kaminaljuyu strategically situated in the central highlands, and cause the end of the long-distance trade route. This also ended the blooming Preclassic

Fig. 14 Occupation timeline of the archaeological site Tak'alik Ab'aj.

early Mayan cultural manifestations, with the particularly sensitive cessation of the almost millennia of sculpture tradition which had developed its extraordinary expression in the locally re-created Olmec and created Mayan artistic canons. The ceramic studies indicate that this alliance came to an abrupt end at the beginning of Late Classic (500-900 AD), and Tak'alik Ab'aj resumed its contacts and interactions along the Pacific littoral piedmont corridor. Around 900 AD the western highland people, had split into different language groups and occupied its different highland regions, nonetheless each looking forward to expanding and gaining access to the rich piedmont cacao plantations and the coastal plains.

The ancient people of Tak'alik Ab'aj were confronted by the challenge of the k'iche' people's expansion, but in this occasion apparently they did not negotiate and its lengthy history was cut short with its abandonment.

The chronology chart also contains the time line of the Long Count system, with Preclassic 7 and 8 Baktun registered on the stelae at Tak'alik Ab'aj and other long distance league cities, as Chalchuapa, El Baul, Chiapa de Corzo, and Tres Zapotes, the Tuxla statuette and Stela 1 La Mojarra.

Scenario for public display of cultural and astronomic history:
Architecture and water management

Tak'alik Ab'aj was already an important city during the Middle Preclassic (800 – 100 BC) and the way the plazas were traced was already a standard -ruled by a 21° axis at the east of the true north- and many of the ceremonial structures were already operating by the time. These first buildings were built with clay and have a long construction history beginning in the Middle Preclassic, going through the Late Preclassic (100 BC – 150 AD) and, in some cases, reached the Early Classic (150-500 AD) and Late Classic (500-900 AD) periods. The oldest buildings are in different areas of the site and, more specifically, inside

the Central Group that conforms the PANTA, located inside Structure 11 (just like the layers of an onion), located towards the west from Terrace 2 and inside Structure 13, located in the east part of the same terrace. South of the Structure 11 is the Ball Court, found intact as it was buried by the constructive fillings of the Late Preclassic Terrace 2.

The west central area in Terrace 3 is limited by Structure 5, the biggest monumental building of the entire site, measuring 113 by 120 m in its base, and with a 16 m height that has an amazing view of the Central Group, whose design is based on the cosmogram concept, replicated by the arrangement of the buildings following the main east-west focus, perpendicular to the north-south axis, and in its intersection, the “Ombligo-Mux” (“navel”, “mux” in indigenous Mam language) as a central point or axis mundi for the city. The main east-west point is represented by Structures 5, 6, and 7, the latter of 79 by 112 m and 3 m tall that limits the east part of the plaza, and the main north-south axis by Structure 2, which is 9 m tall to the north, and Structure 8 to the south. These buildings, just like the rest, were modified during the later periods.

The central point of the plaza, or “Ombligo-Mux” is a simple semicircular basin with a diameter of approximately 2.50 m and a depth of 1 m dug into the natural ground and covered with pebbles with a large stone in the center, and a smaller one on top of the first one in the exact point where the cardinal axes intersect. This central point or axis mundi was the stage for many memorial ritual activities.

Fig. 15. The “Ombligo-Mux”
and Structure 6 on the terrace 3



The Ball Court is probably the best-known example to describe the Middle Preclassic architecture, and one of the earliest clay-ball courts known in Mesoamerica. It consists of 2 long parallel platforms of 8 m x 23 m and a 1 m height located from north to south. The space between both platforms is of 5 m and it was the patio for the game. Located on the south side of the patio is the Sub-1 Structure from east to west (The “sub” prefix is used to identify a building covered by a newer construction, different from the first). The excellent preservation of these clay platforms is due to the careful burial conducted by the ancient architects when they needed to level the field to expand the field of the ceremonial plazas in the Late Preclassic. And repeating the game’s destiny, a thousand years later and after it was discovered and studied, it was buried again to preserve it for future generations, showing a small-scale model to visitors.

The enhanced design of the Late Preclassic plazas is observed in reinforced and remodeled terraces. The existing constructions were elevated even more, and more structures were added. In Terrace 3, Structures 5, 6, and 7 were elevated, and in Terrace 2, Structures 11 and 13 went through the same process. Structures 3 and 4 were added in the north area of Terrace 3 and Structures 9 and 10 were added to Terrace 2.

The rising of Terraces 2 and 3 (and probably most terraces) was designed and built using impressive staircases that reach the next plaza. In the center of Terrace 1 the “Plaza Hundida” (“The Sunken Plaza”, Structure 87) was built in a space of 40 x 40 m and 1 m deep with stone floors and a perimeter wall with a central staircase on each side and with a steam room called “Chuj” (in Mam language) directly on the east side.

Water management program at Tak’alik Ab’aj contemplated two important functions: evacuation of excess rain water and water supply for consumption. Both functions required an appropriate design ruled by the concept of “management of velocity” to control the speed of running

water, by calculating the trajectory of the slope of the constructions and open spaces such as plazas, and the capacity of harnessing and conduction of the canals, not to mention the slope of declivity at a determined angle interspersed with horizontal resting places.

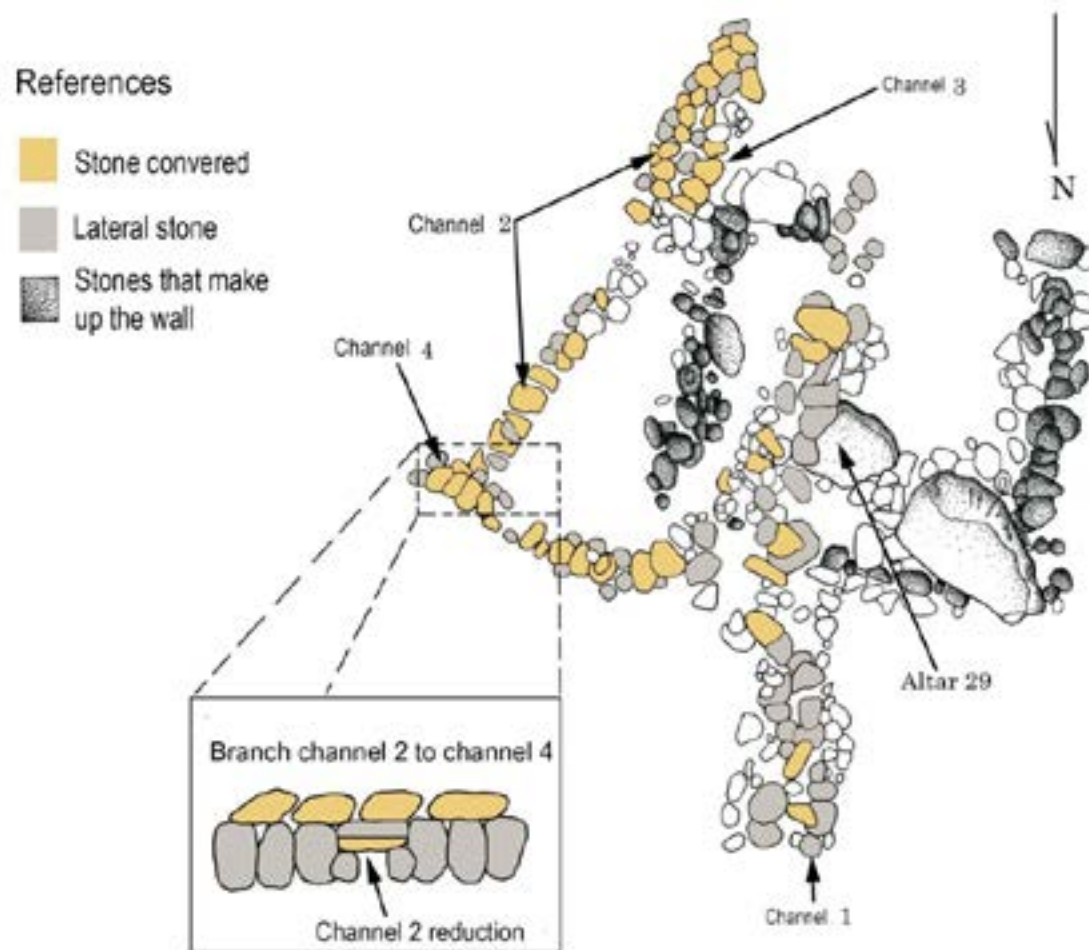


Fig. 16. Hydraulic system implemented in the Tak’alik Ab’aj archaeological site

A “living” example that illustrates the drinking water supply system is “El Escondite” (“The Hideout”), an aqueduct that still works to this day and takes its name from being found in a hidden trench where the El Chorro Creek springs, northeast from the Central Group, where the landscape descends from north to south. The Aqueduct 1 is found at the end of the Terrace 3, under 6 m of constructive fillings, that comes from the north and branches off in different directions, creating an aqueduct system. A small 4 x 4 m sacred chamber enclosed by a wall was built in this area; and where aqueducts 1 and 4 branch out, Stela 56 and Altar 29 were built, both flat. Investigations reveal that this area was built on two consecutive canals (2 and 3) that had stopped working.

Next to this area, the remains of two houses were found. A small house we named “Casa Escondite” (“Hideout House”), and a larger house, the Casa Grande El Chorro. Casa Escondite was located in front of Aqueduct 1 that ran its course and eventually reached Casa Grande El Chorro.

It was a surprise to find that the first aqueduct (the oldest), directly reached Casa Grande El Chorro. It is nice to notice the sound of running water of this aqueduct system that not long ago was still supplying water to the Municipality of El Asintal, is the same sound listened by citizens 2000 years ago.

“El Escondite” can be visited by the public although it is located outside of the nominated property. The Park and the private property made an agreement that allowed the investigation, restoration, valuing, and visiting of the property, and the Park administration oversees the long-term maintenance of the area.

The “Nin Ja” (“Big House” in Mam language) residence was built during the Early Classic period, northeast Terrace 2 and imitating

Structure 12 with the trademark tucked corners. Remarkably close to Structure 12 a “Chuj” was built and from which the tiers of stones on the base are still present.

The “Guacalitos” Canal of Water of 17 m long was built on the Late Classic with big stones and it is in the east sector of the south access slope to Terrace 3 to drain the water from the terrace and transport it to the east sector of Terrace 2 through the east corner of Terrace 2 and into the Ixchivá river. This canal was restored and currently continues to perform the same function.

The 13 m long “David” Canal was integrated to the south faced of the large sacred platform of Structure 7 to evacuate surface water and direct it towards the southeast area of Terrace 3. During the construction of this canal during the Late Classic, fragments of preclassic mayan sculptures were integrated in certain spaces and with specific purposes. In the “mouth” or upper part drain of the canal, part of an incense altar received the water. The rest of the altar was placed in the base of the canal. The pedestal sculpture “David” or Monument 163 that depicts a sitting jaguar on a pedestal, is located on the right side at the end of the canal with its back facing the canal’s interior and was used to literally carry the corresponding stone lid on its back. Another fragment of a stela with remains of sculpted scrolls, Stela 71, was used as the canal’s lid.

It is evident that these sculpture fragments were not reutilized as simple building materials, but were carefully placed with a specific location and function, probably still carrying its sacred value to integrate it to this canal that carried water for Structure 7. Altar 36-38 was divided in two parts to play a special new role in this canal.

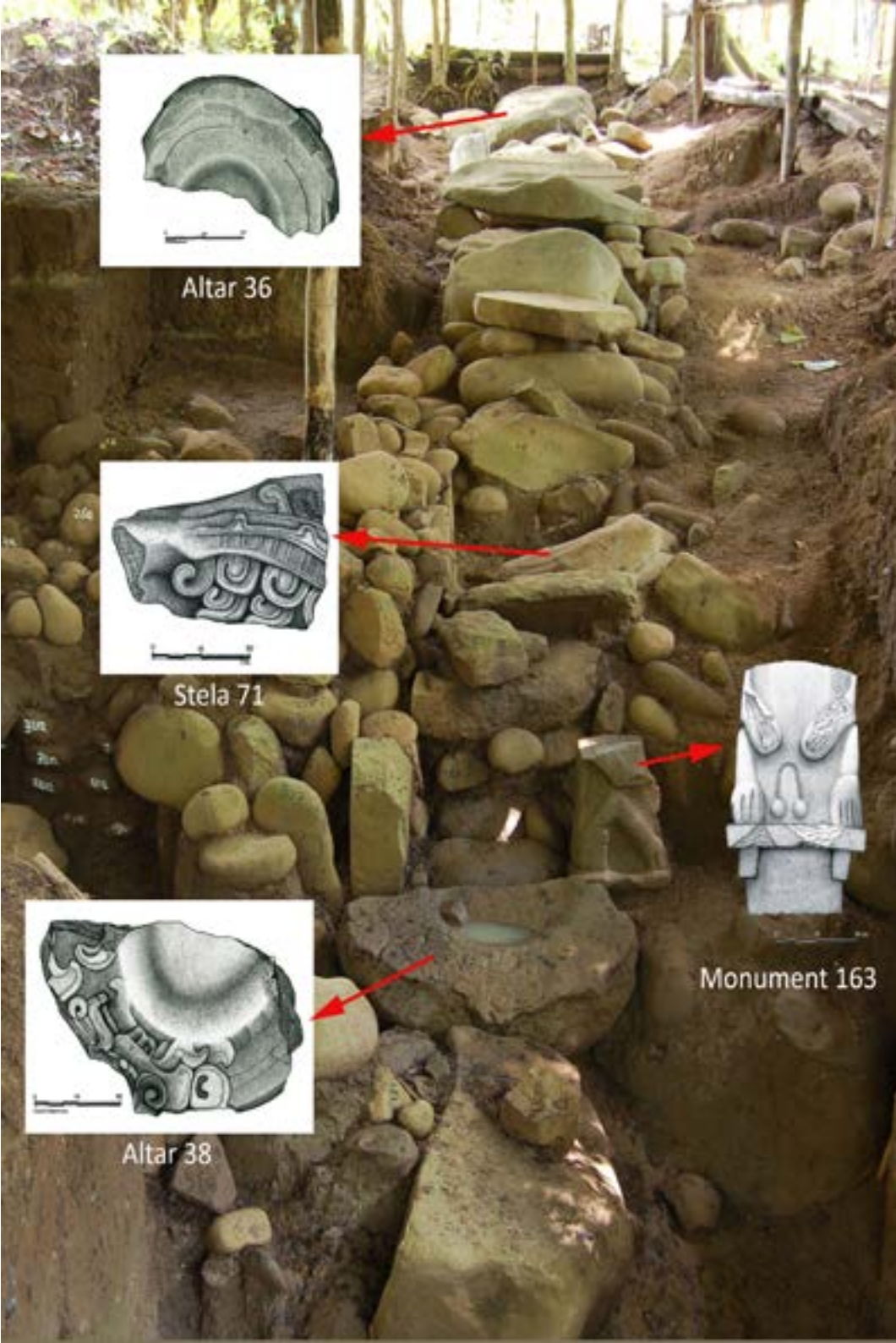


Fig. 17. Reuse of monuments in building systems.

Dealing with aqueduct systems for water supply as in the case of “El Escondite” or water evacuation from buildings and public plazas, these systems held both sacred and practical functions.

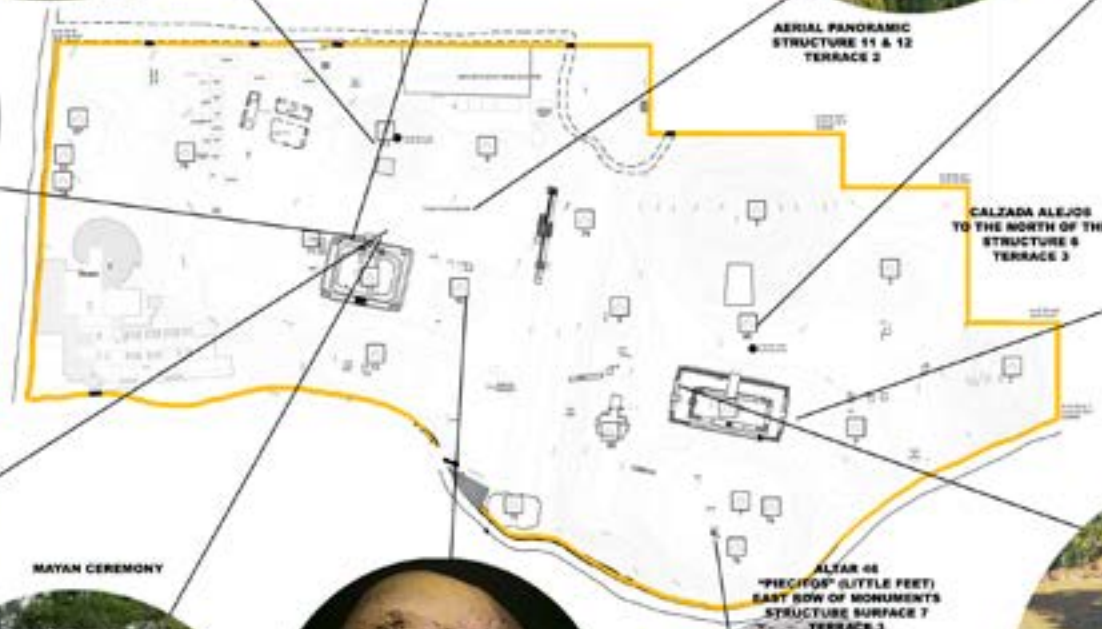
Sculpture in stone

The sculptural program implemented for many centuries throughout a long genealogical line of leaders, made Tak'alik Ab'aj one of the richest sources of sculptural art in Mesoamerica. The integration of sculpture into the design of sacred spaces, created the scenarios for public display of power. Today, this sculptural legacy allows archaeologists the opportunity to know in detail the evolution and gradual changes in the first sculptural tradition that proclaimed the Olmec hegemonic concepts on the first great page of the history of Mesoamerican civilizations of the Middle Preclassic, into the second, the early Maya, during the Late Preclassic.

The carved Olmec-style monuments were shaped like petroglyphs, bulk sculpture, and column style. The majority of these are not located in their original spot, as they were relocated in front of the construction facades of later periods. For instance, the west side of the “Nin Ja” residence was decorated with the ancient Monument 93, which has an Olmec style. This sculpture is another example of the duality man-animal in Olmec thinking as it presents a sitting jaguar with a human head.

Fig. 18. Map of location of structures and altars.

MAP OF LOCATION OF STRUCTURES AND ALTARS



CENTRAL STAIRCASE
EAST FACADE
STRUCTURE 11
TERRACE 2



MONUMENT 66
WEST FACADE
STRUCTURE 13
TERRACE 2



STRUCTURE 11

STRUCTURE 12



OMBLIGO-MUX
TERRACE 3



STELAE 5
ALTAR 5
WEST FACADE
STRUCTURE 13
TERRACE 3

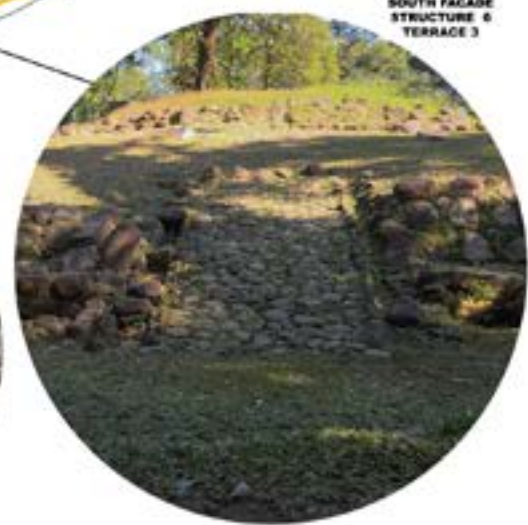


AERIAL PANORAMIC
STRUCTURE 11 & 12
TERRACE 2



CALZADA ALEJOS
TO THE NORTH OF THE
STRUCTURE 6
TERRACE 3

ACCESS RAMP
SOUTH FACADE
STRUCTURE 6
TERRACE 3



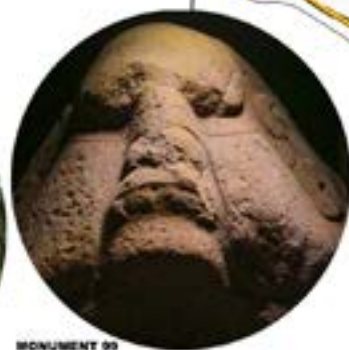
MAYAN CEREMONY



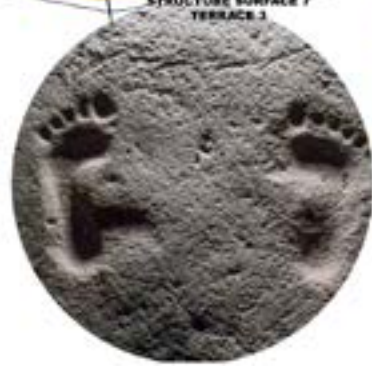
COSMOGRAM
CRUZ-KAN
MAYAN CEREMONY



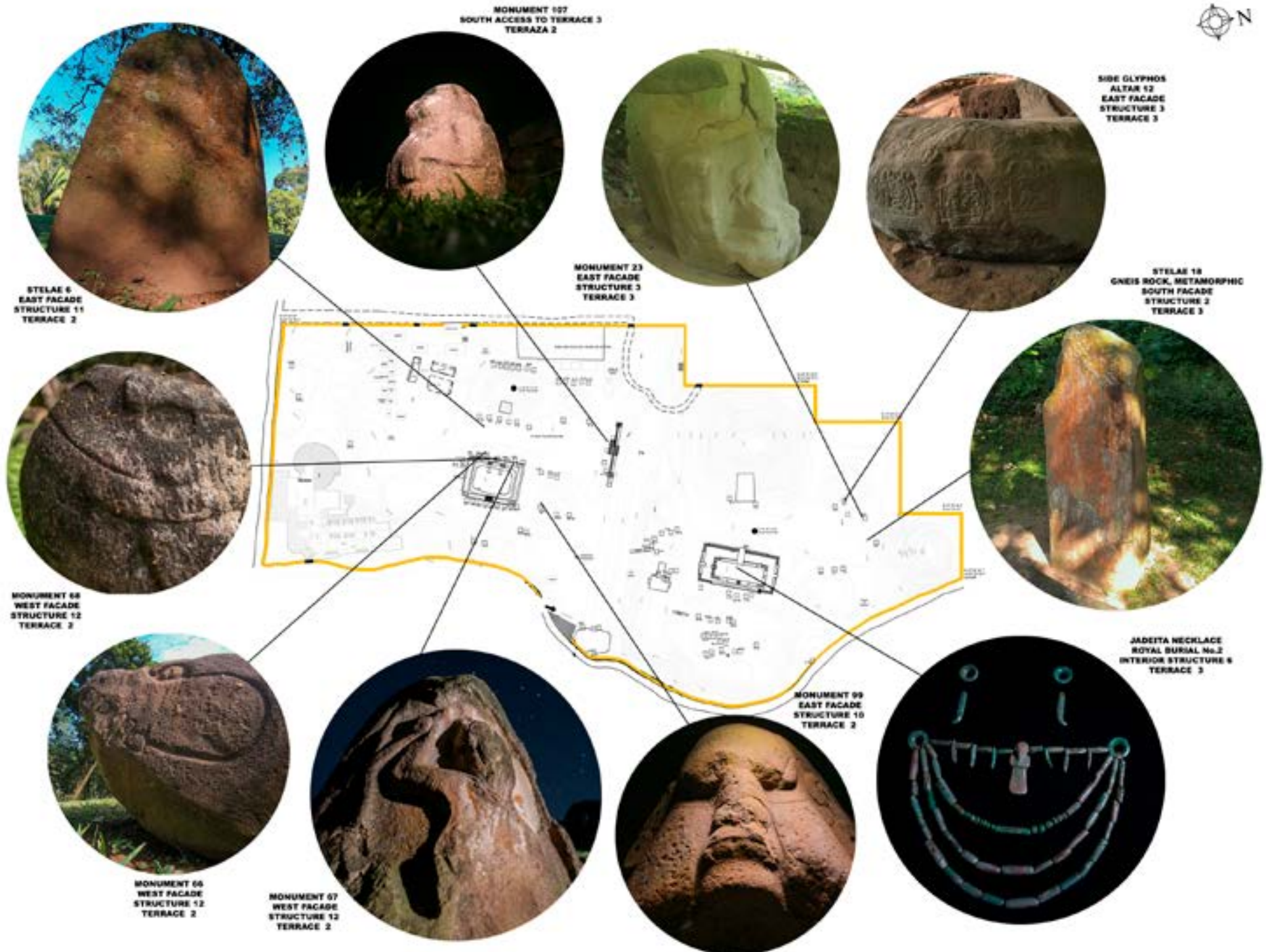
MONUMENT 99
EAST FACADE
STRUCTURE 19
TERRACE 2



ALTAR 46
"PIECITOS" (LITTLE FEET)
EAST ROW OF MONUMENTS
STRUCTURE SURFACE 7
TERRACE 3



MAP OF LOCATION OF STELAE AND MONUMENTS





Stela 87

This stela is sculpted over the natural surface of the rock, without conditioning, represents a ruler invested in profuse regalia and early royal power symbols. He stands in profile looking to his left over a broad earth band with foliar volutes and under the celestial band crowned with the Principal Bird deity. In front of the dignitary a vertical sequence of four “complete head figure” glyphs looking into the same direction, each inside the respective cartouche frame.

The discovery of Stela 87 in situ in a secondary context, as a reused element of sacralization in a possibly royal residence from the Early Classic (Structure 89) at Central Group, locates the time of the original function as a stela in the first part of the Late Preclassic (100 BC – 50 AD). It is in the early part of Late Preclassic that the image and the text with 4 glyphic signs allude to the ruler represented there. It is in the early part of the Late Preclassic that stelae at Tak'alik Ab'aj and other early cities represent their rulers, even without a Long Count date. This was implemented in the second part of the Late Preclassic (50 – 150 AD), of which a good example is Stela 5 (126 AD).

The dignitary carries in his right arm a rigid scepter, on top of which poses animatedly an extraordinary young personification of the dancing “Maize God”. The facial features of this little personage are allusive to the Olmec cultural ancestry (analogically represented in the north and west mural of San Bartolo). The big eye sized grains around the peculiar form of the head of the vast practice of cephalic modification, suggest being more likely cacao beans than maize grains. This therefore encourages thinking in the personification of the “Cacao Deity”, which until present is grown in the regions of the Gulf Coast, Tehuantepec Isthmus and Pacific Littoral.

Fig. 19. Stela 87



Fig. 20. Altar 48

Altar 48

Altar 48 was carved in the first part of the Late Preclassic, the surface portrays the beautiful design of a crocodile with the quatrefoil symbol of the cave or portal to the underworld, figuring as his body. Inside the quatrefoil, a young Maya personage dressed with jadeite bead headdress and loincloth is seated on his throne. Three sides of the altar portray each mythological supernatural creatures. The side abutted to the bottom of the main theme on the surface of the altar, displays four early glyphs, which appear to refer directly to this personage.

The crocodile with the quatrefoil reminds the representations of turtles which shell yield the same symbol. In Maya iconography representations of the Maize god emerging from the turtle shell, in allusion to the sacred life cycle, are frequently found. The four early glyphs open the possibility to relate this powerful mythological theme with a real personage, a ruler, in times of the Late Preclassic, when the new Maya system was “institutionalized” and the universal symbols of the Mayan world were forged, which will prevail in all future epochs.



Fig. 21. Stela 5 in front of Structure 12

One of the best examples of “early maya” sculpture on the site is Stela 5 located at the center of the west façade of Structure 12. The Stela has two people dressed in elegant clothes and headdresses carved into it, standing, and facing each other on the groundline; the figure on the left holds a small jaguar in his arms and the one on the right holds a serpent as a scepter. Between both figures is a panel with two glyph columns on which two Long Count dates are registered, then a four-glyph text. The year recorded on the left column is 126 AD and, on the right, the year 83 AD or possibly 103 AD. The dates correspond to each of the figures. On the top part of the stela one can see evidence of an ancestral theme or a skyline. It is also sculpted on the sidelines.

A cross-seated figure with his arms raised, wearing a headband and loincloth is seen on the north sideline, and above him there is a three-

glyph text, referring to the figure. On the south sideline one sees a similar scene, but the figure here is sitting on a throne. The visitor can see a four-legged throne on the other side of the plaza, at the center of the east façade of Structure 11 like the one described.

Animal representations or zoomorphic sculptural styles also make Tak'alik Ab'aj stand out. They are also bulk sculptures. This type of sculpture can be a monument or altar. Monument 68 truly stands out, as it represents a “singing” toad. One can see its limbs, back, pituitary gland, big mouth, oval-shaped eyes, and inflated throat.



Fig. 22. Open air museum in Plaza Tukur-B'alam.

“Open air museum”

One of the things that truly stands out is the way sculptures of different styles were placed in front of building facades. The richness of the monuments that decorate the west façade of Structure 12 represents one of the richest treasures in the history of Tak'alik Ab'aj. First, there is a pattern of the number of monuments and their distance between each other. There are seven monuments with 7 m between each other or nine monuments every 5 m. Then, the placing of the monuments according to their style. Stela 5 of mayan style is located at the center, escorted on both sides by trails of beautiful zoomorphic sculptures. On the north side, one can see a frog (Monument 68) and on the south side, a crocodile (Monument 66). Some indigenous visitors say that these two figures are the guardians or “nahuales” of Stela 5. Monument 8 is located on the north corner of Structure 12. It is a bulk olmec style that shows a figure emerging from the mouth of a jaguar. Monument 67 is located before Monument 8, and it repeats the scene of a figure emerging from the mouth of a jaguar as he holds with his right arm a ceremonial staff. On the opposite south side, a bulk sculpture of an owl (Monument 9) preceded by Monument 65, also a bulk sculpture of a human head with a helmet and eyes closed.

The styles of the Late Preclassic on this façade and the olmec monuments from the Middle Preclassic probably extracted from their original placements are part of this historic façade or “open-air museum”. The monuments on the corners of this façade, a jaguar (Monument 8) and an owl (Monument 9), inspired the name given to this plaza in the k'iche language, “Tukur-B'alam” or owl-jaguar. On the façade of Structure 12, placed on the same central point as Stela 5, one sees a little frog (Monument 70) that welcomes -with Altar 26 – the sunrise. The rest of the monuments that decorate this façade are 8 smooth stelae.

The potbelly styles sculpted in bulk represent an obese human figure with a prominent abdominal area and his arms resting on his belly, with small variants in the arm and hand positions. The chubby cheeks are droopy and the eyes seem closed. Monument 99 stands out in this category, located on the east side of Structure 10, which seems to have been sculpted by a master from the Monte Alto site as well as the small chubby Monuments 100, 109, and 107 in front of Sculpture 74.

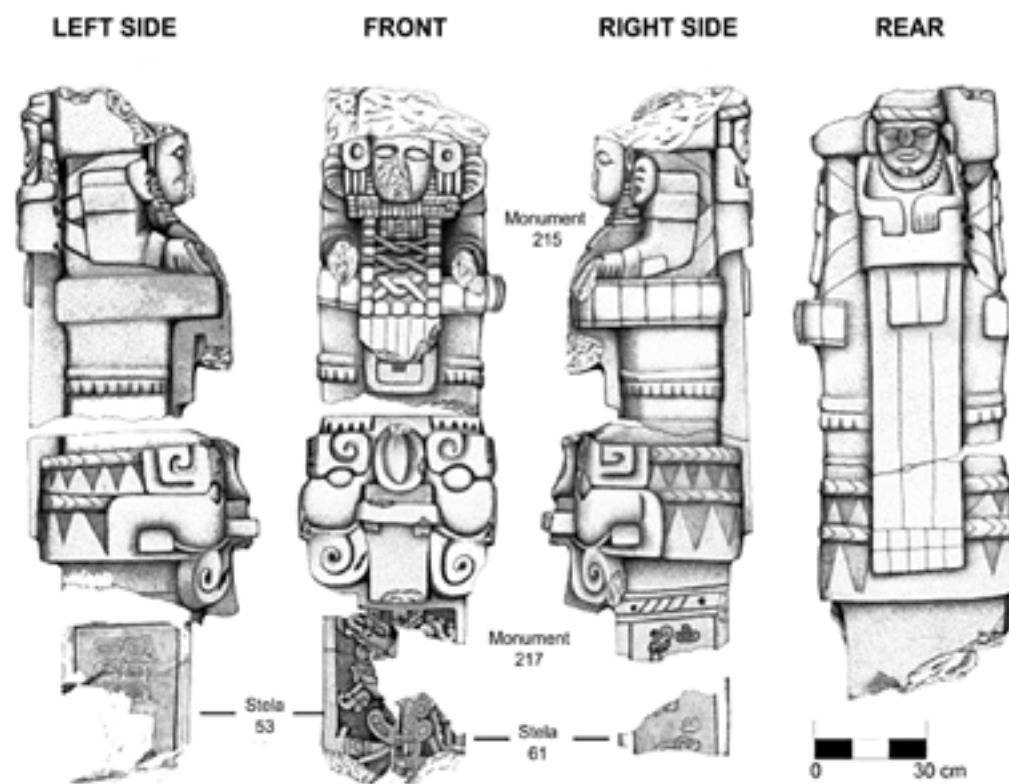


Fig. 23 Bearer of the Ancestor Sculpture

“The Bearer of the Ancestor”

This is a very particular columnar sculpture, unique, as it represents in one sole sculptural piece different traditions (techniques) and concepts (styles), which might be an allusion to the relation of one of the first early Mayan rulers to the cultural ancestor of Olmec connotation. It is composed of four sculpture fragments: Monuments 215 and 217 and fragments of Stela 53 and 61, and in every case, the fragments have been added to the facades of different buildings and in different locations in the same period of the Late Preclassic.

The inferior part represents a column with a governor and two early maya texts crowned by a bat's head over which a standing figure -possibly from the olmec sculptural tradition- appears carrying an infant with aged features. The message from this sculpture is the invocation

of the past, of old traditions, and ancestors, that always should be present in us. It invites us to carry the past on our backs, which is the best concept of what history should be.

The combination of different elements or themes in different traditions becomes a synthesis or replication of the evolution of sculptural forms, which reflects history of thought. In this case, it refers to and resumes the particular history of Tak'alik Ab'aj, and for that reason this extraordinary sculpture will be the guardian, and who will welcome the world when visiting the Site Museum Tak'alik Ab'aj “El Caracol del Tiempo” (“The Snail of Time”) José Luis Ralda González.



Fig. 24. Grandfather's Descent Sculpture

Monument 253a and 253b – “El descenso del Abuelo” (Grandfather’s Descent)

In the west central area of Structure 6 at a 340 cm depth below the surface, two exquisitely carved fragments of sculptures were found: Monument 253a “Descenso del Abuelo” (Grandfather’s Descent), an Olmec head with cords or crossed bands as a symbol of the seat of the “pop” predecessor’s power on its posterior side. On the immediate north, Monument 253b was found, with a power title/symbol and a K’an Cross or cosmogram ritual symbol.

The amazing detail of adhered red hematite pigment still preserved after 2500 years between the cords/crossed bands on the superior part of Monument 253a and 253b, attests to the sacred function of these pieces of monuments in their new role as offerings. This is further heightened by the fact that Monument 253a was placed upside down on a pile of ceramic and stone, as a way of showing the “falling of the ancestor from the skies”, comparable to the falling of the Principal Bird Deity with the feet facing the skies and its head down, eloquently represented on Altar 13 of Tak’alik Ab’aj and widely disseminated during the Mesoamerican Preclassic.

The fragments of sculpture from Monument 253a and 253b are located under the “cardinal band or east-west ceremonial belt” at the top of the west façade of the first version of Structure 6 of the Middle Preclassic that were reference points for ritual offerings and memorial activities centuries later.

Originally, the sculptural fragments from the Olmec culture in the Middle Preclassic conformed a magnificent sculpture and were later mutilated and fragmented during the end of that period, to later be dedicated during the transition period and new Mayan era in the place where they were found. They were commemorated centuries later during the flourishing of the early maya period in the Late Preclassic and Early classic.

All these details and many more show the importance of ritual protocol and strict observance that carries a complex knowledge system and worldview, as well as a powerful central government that manages this knowledge through bureaucratic structures, issuing protocols and enforcing its observance.

Around 150 AD, the sculptural tradition that illuminated the Preclassic of Tak’alik Ab’aj and the South Maya Area ended, as the characteristic voice of the two ways of thinking which illustrated the transformation from one to another.

The Classic Period stands out for its rebuilding and remodeling efforts on old plazas, out of which Terrace 3 named “Tanmi T’nam” (“Heart of the City”, in Mam language). Some buildings were recovered with a last coat of stone that frequently carried minor stela and destroyed monument fragments.

The stelas were replaced as altars in front of the facades and these were joined by large pieces of rock used as stelas. The best examples are Altars 12 and 13, in front of the small Structures 3 and 4.

North from the plaza at the foot of Structure 2 that rises over the following Terrace 4, is the monumental Stela 18, made flat and out of a foreign rock, gneiss, that gives this remembrance plaza a unique character. It also shows the effort of ancient “rebuilders” to show the greatness of Tak’alik Ab’aj. The neighboring Altar 6 with a unique shape represents a scale model of an early maya building with its characteristic corners and like the shape of altars found in Izapa, with headprints and shoulders emerging from the rock.

The size of the buildings on Terrace 3 is much larger than those on Terrace 2, and the sculptures follow this pattern as well. Also, on

Terrace 2, the stelae are carefully carved and the altars are flat, while on Terrace 3 the altars are fragments of sculpted stelae, which are large, bulky, and uncarved rocks.

The only example of an elaborate altar and a coarse stela is in Altar 28 and Stela 55, located on the center of the west façade of Structure 10. This altar presents a delicately sculpted human skull on its front side, and on both sides, two hands that appear to carry the flat surface of the altar. This is the only sculpture in the Park that speaks directly about death. On the left side of the surface of the altar, the prints of two bare feet can be seen, recorded later.

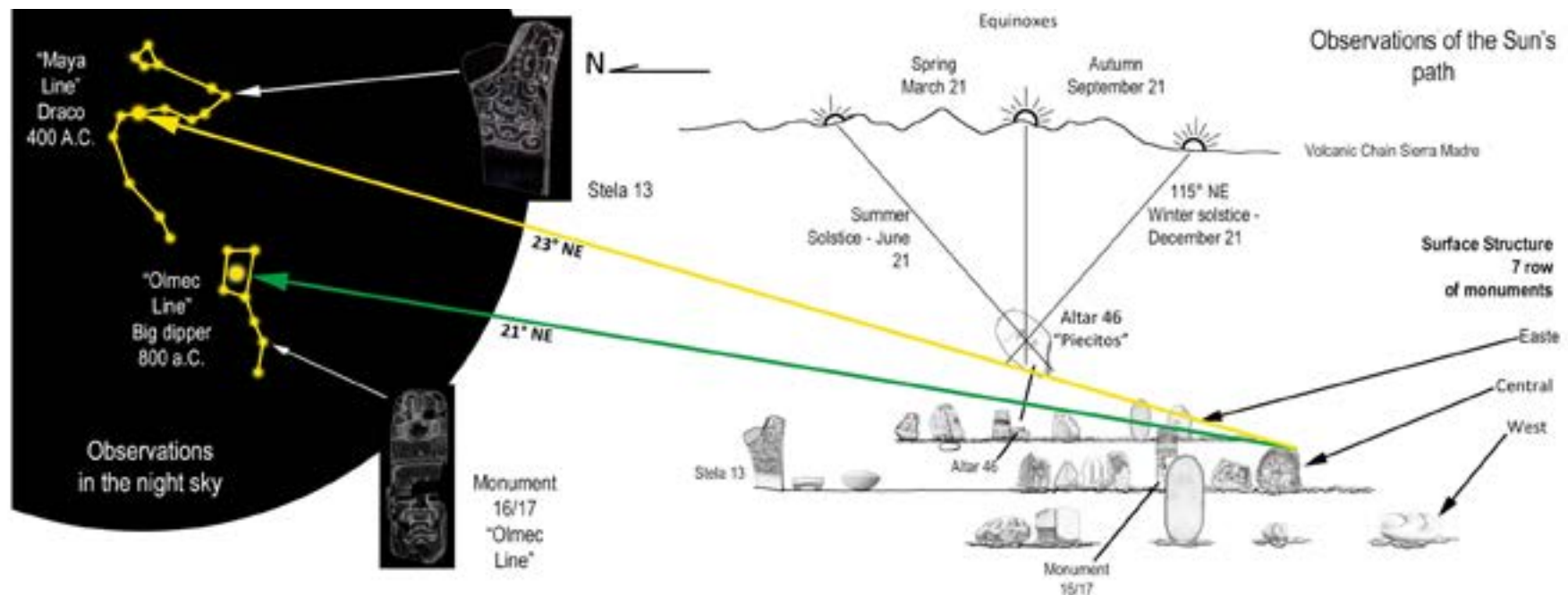


Fig. 25 Astronomic Observatory

Astronomic Observatory

In only two large platforms -Structure 13 (in Terrace 2) and Structure 7 (in Terrace 3)- one can find many sculptures. The large and ancient platform of Structure 7 accommodates not only two small mounds (Structures 7A and 7B), but 27 sculptures (according to the University of California map, Berkeley [Johnson and Pope 1983]). We have been able to expose and study 18 of them, sculpted in Olmec style, flat, maya, and zoomorphic.

These sculptures are placed in three parallel rows from south to north, pointing to the small and important Structure 7A. The orientation these three rows of monuments and the investigations conducted by Marion Popenoe de Hatch on the La Venta, Veracruz site in 1971 and the Códice de Madrid in 1975, allow us to confirm that the rows symbolize astronomical observations in Tak'alik Ab'aj from the Middle Preclassic.

Altar 46 “Piecitos” (Little Feet)



Stela 13 is located on the base of Structure 7A. The position of this stela corresponds exactly to the middle row that pointed to the “serpent in the sky”, the Draco constellation. To realize this is astonishing, as there is a beautifully sculpted serpent on the stela with its mouth open, carved in bas-relief. Around and under the stela, one of the largest offerings in Mesoamerica was found, composed by hundreds of pots that communicate the importance of the cyclical celebration of this astronomical orientation since the beginning of the Late Preclassic -of which the stela was another piece of offering- and its meaning to ancient citizens of Tak'alik Ab'aj. This massive offering is extended for more than 112 square meters. Among the variety of artifacts that conform the offering, there are plates, bowls, and jars. The many obsidian knives are considerably large (around 24 cm). This obsidian comes from El Chayal in the Guatemalan highlands, close to the ancient city Kaminaljuyu.



Fig. 26 Location of the Astronomical Observatory and “Piecitos” altar

Often, small pebbles were placed in the plates, usually in odd numbers. Also, many pierced ceramic disks were found at the bottom of many plates. Overall, a tendency for more significant pieces to face the middle row of monuments in a perpendicular way, following the four cardinal directions is noted. A spiked incense-burner placed at the foot of the stela is identical to those found in Izapa and on Stela 11 of Kaminaljuyu. During previous excavations conducted by the University of California, Berkeley, many offerings on the surface of this structure were also found, probably the most sacred one in Tak'alik Ab'aj.

The author of the archaeo-astronomical study proposes that the use of the east row of 19° NE was to correlate the solar year represented by Altar 46 "Piecitos" (Little Feet) with the sidereal year represented by the central row. Altar 46 is a simple rock in natural shape, its surface has been smoothed and portrays a very special engraving, a pair of genially sculpted footprints oriented 115° east of true north to the sunrise on winter solstice, December 21st. Alike the case of Stela 13, hundreds of offering vessels and remains of burned material were found directly associated with this altar, indicating that a huge ritual event had happened around 100 AD. Careful excavations showed that prior, during and after this event, massive rituals were conducted, very likely cyclical, to commemorate this date of the winter solstice and the very special function of this altar, as well the interesting fact, that the altar itself was part of this formidable ceremony. Wonderful pieces of the ceramic offerings, as an impressive three-pronged censer, were placed at the bottom of a deep hole, prior to the precise positioning of the altar -carefully supported by corner stones- covering it up. This should had been undertaken with such precision, that the mentioned pieces remained pristine and intact, still in its original position.

Sculpture in jadeite

The history of traditional lapidary art at Tak'alik Ab'aj was revealed through the discovery of final Late Preclassic Burial No. 1 and final Middle Preclassic Burial No. 2. The outstanding wealth of both burials apparels provided the opportunity to study the evolution and pattern of Preclassic lapidary art. During Middle Preclassic prevailed the outstanding concept for miniatures leading to production of hundreds of small jadeite beads that constitute embroidered or interwoven designs, a technique apparently shared by many ancestral cultures, and preference for blue jadeite tones.

During Late Preclassic the pattern shifted to the combination of jadeite with other "shiny" materials as hexagonal hematite and iron ore and huge tubular and conventional sized beads became fashionable in addition to hexagonal hematite incrustations and iron ore mosaic reflectors.

The most extraordinary example that illustrates the evolution of tradition in lapidary art of the Middle Preclassic to the Late Preclassic period is the development of the mosaic concept eloquently manifested on the miniature ceremonial heads of Burial No.1 and the offerings of the "Lord of the Fret" and the "Massive Offering of Mosaics", that originate in the hatchet with a bird's head, central pendant of the necklace in Burial No.2.



Fig. 27 Jadeite offering in Burial No. 2

2.b History and Development

Tak'alik Ab'aj was first known over a hundred years ago, since then it has caught the attention due to the hidden sculptures, which tips still emerge from the ground. Botanist Gustav Brühl was the first who mentioned the city in 1888 awakening the interest of a series of archaeologists and researchers who visited and studied the site: Karl Sapper in 1894, Walter Lehmann in 1925, Eric Thompson in 1942; Tatiana Proskouriakoff identified the early Mayan style on stelae in 1950. Edwin Shook and Suzanne Miles included the site and their investigations about South Coast region in 1965 and Lee Parsons in 1972.

Suzanne Miles unified different names given to the site and baptized it with the name Abaj Takalik. This name she chose wanted to express Standing Stone in indigenous k'iche' language, but with a grammatical error in the translation. K'iche'-spoken people declare the corrected name as Tak'alik Ab'aj, which is its current name (Ministerial Decree 706-2001). Formal archaeological investigations were first conducted by Doctors Graham and Heizer of University of California, Berkeley, from 1976 to 1981. Objectives were centered to discover sculpted monuments and the first map of the entire site's extension of 6.5 km² was accomplished with contour lines of 5 meters.

YEAR OF INVESTIGATION	INVESTIGATOR / INSTITUTION	DISCOVERIES AND CONTRIBUTIONS
1888	Gustav Brühl/UCB	The first person to promote and make the site known.
1965	Edwin Shook/UCB	Includes the site in his studies on the South Coast región.
1965	Suzanne Miles/UCB	Includes the site in her studies on the South Coast region, in which Monument 6 and Stela 3 are defined as Miraflores-style. The site receives its name, Abaj Takalik (in K'iche language, which means 'Standing Stone'; the name was later corrected to Tak'alik Ab'aj).
1976-1981	Graham y Heizer/UCB	First formal archaeological investigations led by the University of California, Berkeley. The focus of the investigation was to discover a site with olmecan sculptures in the South Coast.
1976	Johnson M. and Pope, K./UCB	The topographic map is lifted, with 5 m cuotes, scale 1:5000

The National Project Abaj Takalik started archaeological investigation in 1987 with a Guatemala multidisciplinary team directed by Archaeologist Miguel Orrego Corzo, the founder of the project. This was possible thanks to the generous donation of 15.38 ha from the Finca Santa Margarita owners, Mr. José Luis Ralda Gozález and Mrs. Ruth Rocío Ralda Villadeleón, to the Guatemala State. The donated area, which was part of a coffee plantation, covers Terraces 1, 2, and 3 where the Central Group of Tak'alik Ab'aj was settled. The objective of this donation and the Project was to develop the National Archaeological Park Tak'alik Ab'aj. The Ministry of Culture and Sports, the Head Office of Cultural and Natural Heritage and the Institute of Anthropology and History of Guatemala have supported and financed totally this Project from 1987 up to date.

In 1989 began the visitor's guidance program, in order to provide the visitors a personally guided tour through special designed pathways and providing them the opportune and correct information. The guides, which are guards and guides at the same time, have been trained by the archaeologist team and are constantly updated with the last new information. This has enhanced the quality of the visit, the visitors, of which the majority are students, have the opportunity to learn plenty during the tour, as well it helps greatly to prevent damage to the cultural and natural heritage. This same year 1989 the National Council for Protected Areas (CONAP) declared Tak'alik Ab'aj as Area of Special Protection (Law Decree 4-89).

As well in 1992, in order to facilitate the visitor's access to a small sample of artifacts recovered from excavations, a temporary "Archaeological Exhibition" was opened; for the meantime the Site Museum Tak'alik Ab'aj "El Caracol del Tiempo" ("The Snail of Time") José Luis Ralda González is constructed. In view of the increasing number of indigenous groups of different ethnic affiliation visiting the park -site considered by them as sacred place- to perpetuate their ritual traditions, an alternative altars program and corresponding regulation

was implemented in 1995 in order to provide them an adequate place for their ceremonial rituals, as well the guidelines to cooperate with the conservation principles, which has been successfully accepted.

This way, the cultural heritage is protected and at the same time the opportunity is given to function in harmony as a sacred place, thus opening the road to a living heritage site with all participants cooperating in its protection and conservation. By 1999 the government had proceeded promptly with the construction of the asphalted road from central Municipality of El Asintal to the Park. In order to provide better attention to visitors and improve guardedness of all areas, a permanent personalized guidance program system is being carried out since 2000.

In 2002 the whole extension of the archaeological site (650 ha) was declared National Cultural Heritage and the Project categorized as National Archaeological Park Tak'alik Ab'aj by the Ministry of Culture and Sports due to its major importance in archaeological, historical, artistic and cultural value (Ministerial Decree 528-2002). The same year, in order to support the conservation and safeguard of iconic original sculptures, a selective replica program was developed, which enables the careful presentation of the cultural scenery without detriment of its originality, parallel to the necessary safekeeping and exhibition of the selected sculptures.

The Park's development had increased considerably for the last years, which implied optimization of the administrative and archaeological documentation systems; and minimization of fuel investment for power generators, particularly for economic and environmental reasons. As well, in view of the high expectations of the construction of the Site Museum Tak'alik Ab'aj "El Caracol del Tiempo" José Luis Ralda González and the required conditions to guarantee security, in 2006 electrical power supply was introduced into the Park. A graphic/digital documentation center to safekeep all research data was opened that at present keeps modest computer equipment for what is needed.

Besides the particular character of local architecture and cultural landscape highlighted by the hundreds of sculptures made accessible for the public in the Park, the outstanding asset of artifacts recovered from the intensive excavation program, which produced multiple important discoveries, as two of the most ancient and richest royal burials and spectacular offerings, testimony of the power and wealth and leadership in technological innovation and intellectual achievements of this ancient city, will be exhibited to visitors, in a proper display of an iconic building designed to enhance the particular history of Tak'alik

Ab'aj. This will be made possible with the construction project of the Site Museum Tak'alik Ab'aj "El Caracol del Tiempo" José Luis Ralda González; its design represents the "The Time Snail" or spiral, through which space the visitor will undertake a voyage through time, witnessing the evolution during almost two millennia of startling history, and finally reaching out to the present. This construction project started in 2007 and it is waiting to be finished.

YEAR OF INVESTIGATION	INVESTIGATOR / INSTITUTION	DISCOVERIES AND CONTRIBUTIONS
Schieber de Lavarreda and Orrego Corzo 2021 in preparation	National Archaeological Park Tak'alik Ab'aj	The reason why investigations started at Tak'alik Ab'aj was to explain why there is evidence of Olmeca and Maya cultural tradition in the same place. Now we know that this was caused by the Cultural and Commercial Long-Distance exchange Tak'alik Ab'aj had throughout the Tehuantepec Isthmus, the Pacific Coast, and the Highlands, which caused an exchange during the Middle Preclassic with the dominant Olmecas and later on, with the flourishing early Maya culture.
Schieber de Lavarreda and Orrego Corzo 2010c	National Archaeological Park Tak'alik Ab'aj	Introduction of the concept of reusing or recycling sculptures of earlier periods in newer buildings and the Open-air Museum (Structure 12): the ever-present ancestor veneration.
Schieber de Lavarreda and Orrego Corzo 2012a	National Archaeological Park Tak'alik Ab'aj	Creation of the astronomical horizontal Sacred Axes (as guides to space) and ancestral vertical (as guides in time).

Popenoe de Hatch 2019	National Archaeological Park	Tak'alik Ab'aj	Ocosito ceramic tradition studies. The foundation of the continuity and permanence of the local people from its settlement and throughout its history and cultural transition from Olmeca to Maya.
Popenoe de Hatch 2019, Schieber de Lavareda and Orrego Corzo 2013a and b	National Archaeological Park	Tak'alik Ab'aj	Astronomical and Solar Observations studies. The foundation of the calendar system and Long Count throughout the long distance exchange route from Chalchuapa to Tres Zapotes, locating Tak'alik Ab'aj among the first cities to participate in this cultural corridor.
Schieber et al. 2021 in preparation	National Archaeological Park	Tak'alik Ab'aj	Collaborative study. Stela 87 in Tak'alik Ab'aj is the foundation for the analysis of the first Mesoamerican writing systems with specialists from different backgrounds and experience.
2012-2021	National Archaeological Park	Tak'alik Ab'aj	Study of cultural patterns, living areas, and potential "empty" crop areas inside Tak'alik Ab'aj.

The Site Museum Tak'alik Ab'aj "El Caracol del Tiempo" José Luis Ralda González is located within the Nominated Property, its design and construction were previously approved by the Ministry of Environmental and Natural Resources. The Guatemalan architect José Alejandro Flores López, who designed the building and the museography of this museum, argues in a letter that this museum is a vital space for the confraternity and conservation of the pre-Columbian vestiges that belong to the site. The selected place to locate the museum was strategically thought to coincide with the sector of the original historic entrance to the south of the city, for the ancient travelers coming from the long-distance trade route. The dimensions of the museum are adequate and are aimed to communicate and show its contents to

foreigners, nationals, and especially local population. It was proposed that besides displaying the vestiges in a periodic way, the museum will present as well by temporary expositions the characteristics of the customs of the local people in its interaction of cultural continuity between past and present inhabitants. The architectonic components are suitable to the natural context and emphasize the category of the place.

In 2010, the Technical Office of National Budget (Ministry of Public Finances) decided to change the investment program category of the Park to functioning program. The latter implies the security of a modest but steady annual budget assignment.

Cultural history

Middle Preclassic (800-100 BC) - The Olmec Culture

In this epoch, during the Middle Preclassic period between 800 and 100 BC, the plan of the city was laid out and maintained for over 2000 years. The ceremonial buildings consisted of platforms built of unfired, but well-prepared clay. One of the earliest ball courts known in Mesoamerica was associated with these earthen platforms at Tak'alik Ab'aj.

One of the largest and most sacred platforms of the site, Structure 7, illustrates the characteristic Middle Preclassic monumental architecture, and appears to have been used as scenario to register the history of astronomy. There are three parallel lines of monuments located on the platform surface; the center line marks an orientation of 23° east of true north. This orientation would have been in line with the center of the trapezoidal “bowl” of the constellation we know as the Big Dipper when it appeared directly east of true north. For the ancient astronomers, this trapezoid might have represented the characteristic mouth of the were-jaguar in the night sky. In pre-Columbian Mesoamerica, the jaguar was associated with the night and darkness.

Together with the construction of the ceremonial platforms, the stone sculptures provided the most powerful tool for the ideological and political expression of the rulers. As such, these sculptures are the most notable artistic heritage of Tak'alik Ab'aj and they distinguish it from other sites. The sculptural style of this epoch is Olmec. One of its principal artistic themes was the were-jaguar, a human being with feline features. It can be identified by the way the mouth is represented, usually trapezoidal. Often, a human being is depicted emerging from a niche symbolized as the open jaws of a jaguar. These stylistic expressions are rendered as engravings on stones and as boulder sculpture.

Late Preclassic (100 BC-150 AD)- The Mayan Culture

Around 100 BC, at the beginning of the Late Preclassic period which lasted until about 150 AD, Tak'alik Ab'aj went through some significant changes which are reflected in the ceramic and architectural record. The existing structures were enlarged and more buildings were added. In the Central Group this activity resulted in reducing and limiting the space of the plazas on the east and west sides. The access to the terraces was expanded by adding impressive stairways.



Fig. 28. Structure 74, which incorporates the Potbelly style.

As the buildings grew in size, new architectural and construction techniques were introduced. The durability of the buildings was enhanced by applying a cobblestone facing to the clay construction. The typical Mayan inset corner and the combination of basal and inclined wall appeared. The system for draining rainwater from the plazas was fortified with cobblestones. In the residential areas, a system was devised to supply drinking water by means of aqueducts made of cobblestones. The city was obviously in the process of a vigorous new growth and expansion.

During the Late Preclassic the sculptors at Tak'alik Ab'aj erected a number of new monuments in the plazas, which resulted in three different styles: Maya, "Potbelly" and Zoomorph. The Maya style differs from boulder sculptures in that the stone is cut and trimmed in the form of a shaft (stela) before the artist begins to engrave the design on it. Typically, the Mayan Stela depicts an important person standing upright, often viewed in profile, wearing sumptuous robes and hair adornment. Usually, an elaborate design above the ruler (a face emerging from a cloud of scrolls) indicates his relationship to some ancestor through whom the ruler has inherited the right to power. Early versions of the Mayan style portray the ruler standing with one foot in front of the other. Also, characteristic of the early style is the theme of two persons facing each other with a glyphic panel between them.

The beginnings of Maya Writing are evident on the sculpted monuments at Tak'alik Ab'aj in the form of brief glyphic texts and Long Count dates. These early styles of Mayan art and writing are shared with other sites such as Kaminaljuyu in the valley of Guatemala; El Baúl and Chocólá on the South Coast, and Chalchuapa in El Salvador, all major centers along the important coastal/highland trade route.

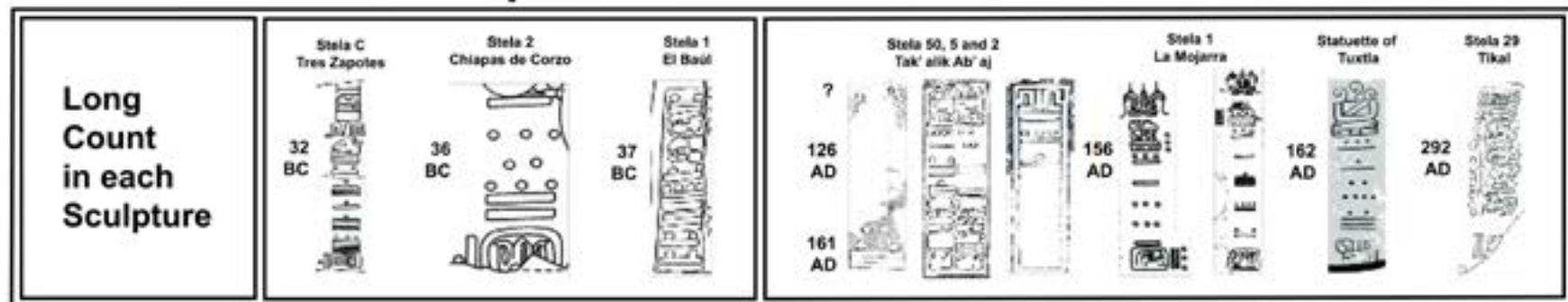
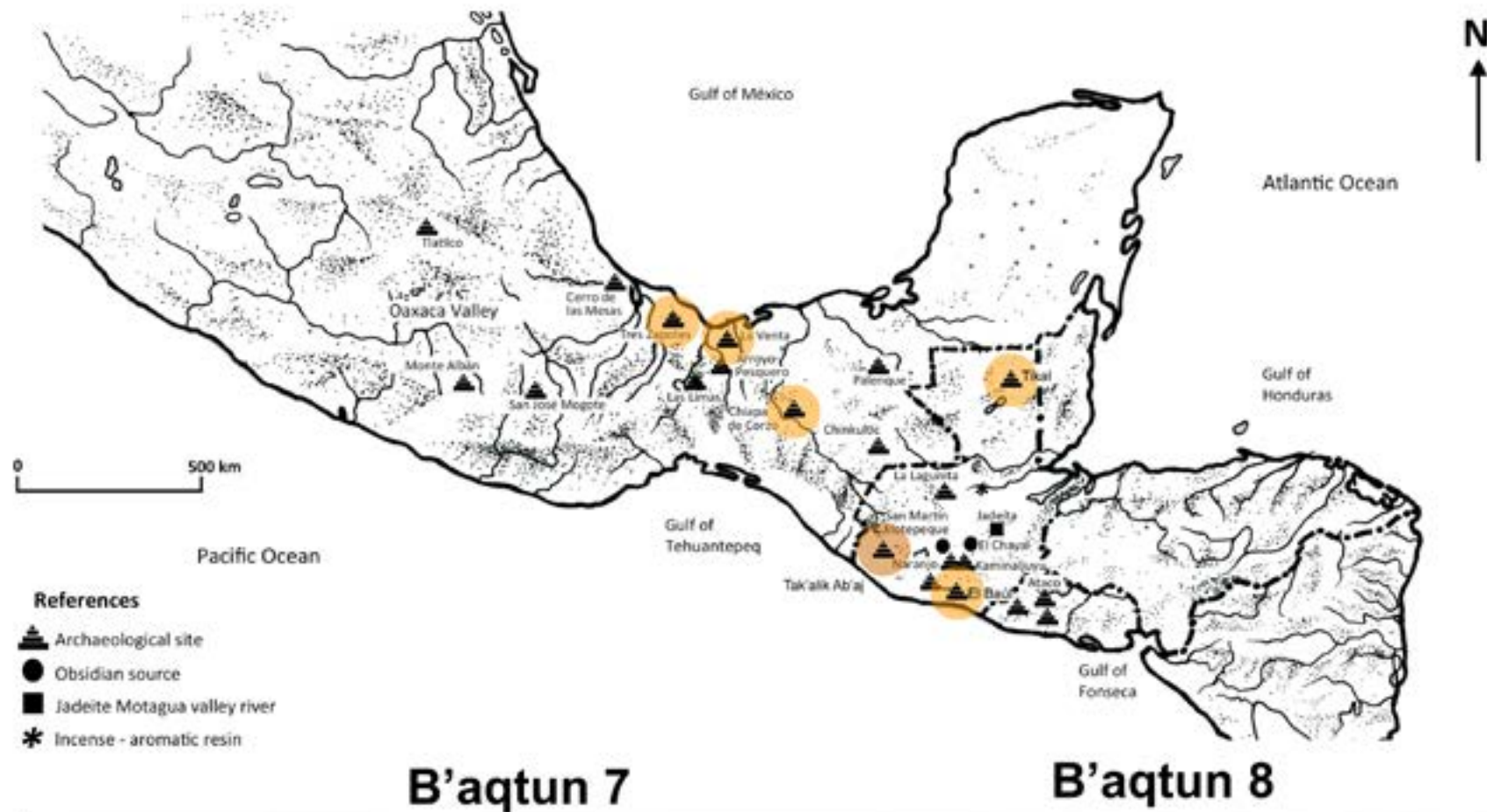


Fig. 29 Evidence of writing in Mesoamerica

The “Potbelly” style at Tak’alik Ab’aj continued the preceding Middle Preclassic tradition of bulk sculpture. These sculptures usually represent obese humans with swollen eyelids, the hands placed over a prominent belly. Boulder sculptures that represent aquatic animals, such as frogs and crocodiles, are considered to be a local style but, like the potbellies, are found distributed throughout the region of the South Coast and Highlands of Guatemala. Along with these changes in artistic style, modifications were carried out on the large sacred platform of Structure 7. The central line of monuments was altered very slightly, being shifted 2° further to the east, and several new monuments executed in Mayan style were added. Apparently, the shift in alignment now focused on a star in the constellation Draco when it reached a position due east of true north.

It is believed that for the Maya, as for various other cultures, this constellation represented a dragon or serpent in the sky. Sighting over this central row of monuments northward across the large platform the line projects directly over Stela 13 which was then erected at the base of small Structure 7A. This stela depicts, in early Mayan style, a beautifully sculpted serpent. At the base and in front of this stela the archaeologists found hundreds of plates and vessels which had contained offerings dedicated to this serpent image, directly aligned with the serpent constellation in the night sky.



Fig. 30 Offering in Structure 7 where early Maya-style material was located.

Analysis of the star in Draco (Eta Draconis), the focus of the new alignment, shows that it was an extremely stable star whose date of appearance in the sky changed by less than one day between the years 1800 BC and 425 AD, a total of 2225 years. Such a trait, quite unique among stars, would have made Eta Draconis an excellent calendar star, a fact that evidently was understood and appreciated by the Mayan observers.

The change in astronomical orientation coincides with the demise of Olmec styles and the onset of the Maya cultural traditions that were

implemented by the local population at Tak'alik Ab'aj. The hundreds of offerings express the sacred aspects and importance of the new ideology symbolized by the image of the serpent. Even more surprising is that recently, by excavating further along the line of orientation, archaeologists found a royal burial. A very important personage had been interred in the center of the small structure just beyond the "serpent stela" with all his elaborate paraphernalia, who is presumably the last of the early Maya rulers at Tak'alik Ab'aj.

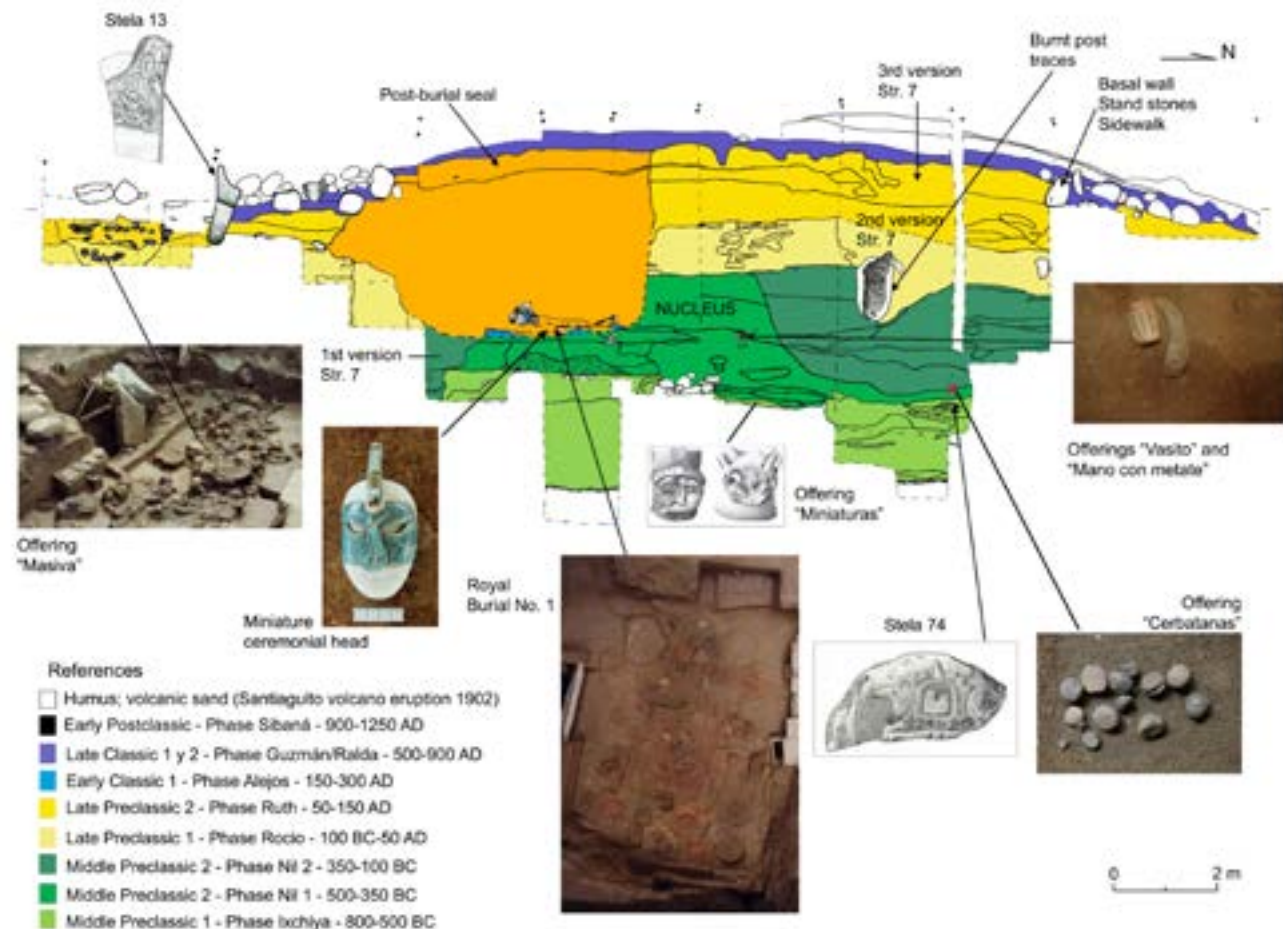


Fig. 31 Offering associated to the introduction of the early Maya style.

The vessels associated with the burial provide an approximate date of ca. 150 AD for the interment, about the same time that the Mayan style of art and architecture ceased at the site. It would have been most appropriate and logical to choose this location for the burial of the last early ruler at Tak'alik Ab'aj who identified himself with Mayan ideology and its symbols, to rest under the serpent in the sky.



Early Classic (150 – 500 AD)

Tak'alik Ab'aj started to decline during the years between 150 and 500 AD, the period which corresponds to the Early Classic. This phenomenon may be related to the collapse of the important trade network currently taking place due to the simultaneous actions of several expansionist groups who were pushing aggressively through the highlands and along the south coastal plain.

The most dramatic aspect was that all sculptural activity, the powerful voice of the city in former times, came to an abrupt halt. It appears that the destruction and mutilation of the monuments may have occurred during this time, perhaps the result of a violent episode, but such an event is uncertain. It is clear however, according to the ceramics and obsidian sources, that there was a reorientation in commercial relationships, shifting from the coastal route to one within the northwestern highland region of Guatemala.

Archaeological evidence particularly at Structure 6 suggests that Tak'alik Ab'aj chose to make an alliance with this expansionist highland people who had gained control over the central highlands, benefiting greatly with this new interrelation with economic growth and power.

Structure 6 was remodeled with a new architectural version of a combination of basal walls and slope, tucked corners, ramps, and staircases, complemented with extraordinary offerings of miniature ceremonial heads of jadeite mosaic like the offering of the "Lord of the Freet".

Late Classic (500 – 900 AD)

In the Late Classic period, between 500 and 900 AD, Tak'alik Ab'aj experienced another change, interrupting its relations with the highland and reestablishing its contacts within the piedmont region. The facades of buildings were remodeled and covered with ramp like cobblestone revetment, continuing with the sacred act of re-using ancient Preclassic sculptures integrating them in paved floors and evacuating canals, as Canal "David".

Postclassic (900 – 1524 AD)

The last page in the book of the history of the city was written at the beginning of the Postclassic period (900 to 1524 AD). The remains of sporadic k'iche' ceramics scattered over the site recovered by the archaeologists seem to coincide in many ways with the reports in the ethno historic sources that document the intention to gain domain the South Coast to get access to the coveted cacao plantation and maritime resources, among others. It appears that the people of Tak'alik Ab'aj in this historic occasion didn't manage to negotiate with the k'iche' people and abandoned the site. For that reason, according chronicles when conqueror Pedro de Alvarado traveling from the Soconusco and heading to the highland valley of Quetzaltenango the ancient city Tak'alik Ab'aj was completely unnoticed, having disappeared underneath the dense tropical forest.

The remarkable culture of this ancient metropolis lives on in the ceremonial rites which continue the traditions and the rituals performed by the ancestors of modern indigenous groups. Thus, the ancient cultures survive in the eyes of the Guatemalan and the world.



Fig. 32. Mayan ceremony performed in the National Archaeological Park Tak'alik Ab'aj.

Milestones of philosophers, astronomers, artisans, craftsmen and merchants

The role of Tak'alik Ab'aj as a commercial center of international importance, gave it wealth and power. Such status required competitive capacity, giving it opportunity to develop not only economically but culturally and intellectually as well, making the site advanced to protrude on this field. Among intellectual gains it may be mentioned the astronomical observations for timing, early development of a glyphic writing system and the Long Count. Among artistic achievements, development of a unique sculpture program that created on rock Tak'alik Ab'aj's history of thought. About lapidary art,

this city developed a particular passion for jadeite mosaics constituting miniature ceremonials heads and reflectors, unique in Mesoamerica. Finally, the local ceramic production at Tak'alik Ab'aj, called Ocosito Ceramic Tradition, is the most eloquent legacy making noticeable that inhabitants themselves were protagonists of the necessary chances part of its long and versatile history.

Market and trade

Goods and ideas, travelers all through time

Archaeological sites having at least one sculpture or representation of Olmec and/or Mayan style are located across the Pacific piedmont, approximately 45 km distant to each other –which might represent the average distance a merchant could walk on a day. The sites including Olmec sculpture are: Tak'alik Ab'aj, Chocotá, El Baúl and Amatitlán; the sites with Mayan sculpture are: El Jobo, Tak'alik Ab'aj, Chocotá, El Baúl and Kaminaljuyu in Guatemala, and Chalchuapa in El Salvador. Marion Popenoe de Hatch and Edwin Shook (1999) have proposed the Olmec sculptures disposed at these sites during Middle Preclassic could mark the centers participating in the long-trade route, because at this height of the volcanic slope the mountainous landscape is not too escarped, and the rivers are not too wide to cross. The route could have continued toward Chiapas thru Soconusco, Tehuantepec Isthmus and/or Grijalva River, maintaining the same principle of geographic pass with minor effort, reaching the Olmec nuclear zone on the Gulf Coast where the grand Olmec cities settled, San Lorenzo and La Venta.

Along this trade route those important cultural centers were provided with precious goods such as obsidian, jadeite, cacao, quetzal feathers, iron ore, andesite and basalt for grinding tools, that are not available in these zones; as well were the cities constituting the route, redistributing these goods to minor centers within their regional perimeter.

It is believed that the Olmec sculptures in those cities were bearers of cultural symbols representing the hegemonic culture of that time, a culture propelling or administrating the long-trade system to guarantee itself the supply of goods. The same scenery is proposed for the cities having Mayan sculptures during Late Preclassic (100 BC – 150 AD) with emergence of early Mayan culture at Southern Maya Area, being

Kaminaljuyu on the central highlands the administrator of the route, possessing control over El Chayal obsidian source and jadeite from Motagua Valley.

Tak'alik Ab'aj was part of this long-trade system as an important regional center and trade partner with La Venta during Middle Preclassic and with Kaminaljuyu during Late Preclassic. This is the reason why the Olmec cultural expression existed at Middle Preclassic revealed in the great sculpture tradition, urban design and architecture; and during Late Preclassic, it can be literally observed the development of early Mayan cultural manifestations placed on sculpture, writing and architecture. Being such an important commercial city, a market place should exist for those transactions. Archaeologists think to have found a market at the south of Central Group, concurring to building's arrangement suggesting the entrance to the big city.



Fig. 33. Area where the Market was located in the archaeological site Tak'alik Ab'aj.

The trade system led by Kaminaljuyu collapsed at the beginning of the Early Classic, when this city suffered the intrusion of Pre-k'iche' people coming from Guatemalan west highlands, defined by Marion Popenoe de Hatch according to its "Solano" ceramic tradition. These people took Kaminaljuyu making changes such as to supplant local Las Vacas ceramic production, which had been extent to an interregional area called Miraflores Sphere.

Early Mayan sculpture tradition ceased especially at Kaminaljuyu and Tak'alik Ab'aj, where it was first developed, and the cities participating in the long-trade route re-directed their commercial relationships regionally. It is believed that these events could produce the end of early Mayan development all over the Southern Maya Area.

Religion, politics and power

Dominion over the human and the divine

The rich sculptural asset is the best medium to tell what ideas people had in mind at Tak'alik Ab'aj, engraved on rock and a such preserving them until today. It can be observed two predominant subjects represented by multiple manners in different styles of the sculpture traditions proper of each epoch: religious or divine theme and man's dominion theme. Apparently both subjects dispute hegemony, and finally predominance of man's dominion overtaking divine.

Religious or mythological topics are initially more important during Middle Preclassic, when the city shared Olmec ideology, particularly expressed in sculpture. Human beings depicted with qualities demonstrating a divine dominion began to appear as history went on, as personages coming out from jaguars' open jaws or jaguars becoming men. Further, the human personage started to dress with symbols representing divinity. At the beginning of Late Preclassic, together with the emergence of early Mayan cultural expression, it can be also observed the presence of a mythological or religious dominion, followed by the appearance of a human being dressed by sacred divine power, for example the celestial serpent held as scepter to rule, what can be interpreted as a political act.



Fig. 34 Monument 23



Fig. 35. Monument 93



Fig. 36 Stela 4



Fig. 37 Stela 1

The apparent evolution of dominion over the religious ambit, which represents the form for understanding world, universe, the idea and philosophy, into the dominion of the political ambit, which uses the religious theme to execute the power to rule, transforming idea to ideology, is one of the most important characteristics that can reflect the degree of development of human history, that can be summarized in the history of human thought, in this case particularly of Tak'alik Ab'aj's history of thought. This suggests that society began to rule by means of using religion, developing from shamans to rulers who instituted and represented the ideological system that sustained their political power based on divine power personified in them.

Urban center

Urban life within the scenery of sacred space

The setting of the ancient city was adapted to the natural landscape. Urban planning is evident since the beginning, obeying a layout that ruled the location and orientation of the buildings –different in each of the four architectonic groups. The design of the Central Group, which represents the center of the whole city, is defined by a north-south axis of 21° east of true north establishing the orientation of the plazas and a perpendicular east-west axis related to the location of the principal buildings, that is repeated identically over the plazas on major-dimensioned Terrace 3 and minor-dimensioned Terrace 2. This arrangement was set since the Middle Preclassic and respected during Tak'alik Ab'aj's history. It represents the essential design of sacred space that was the scenario where politic and religious events took place along all cultural epochs of the city.

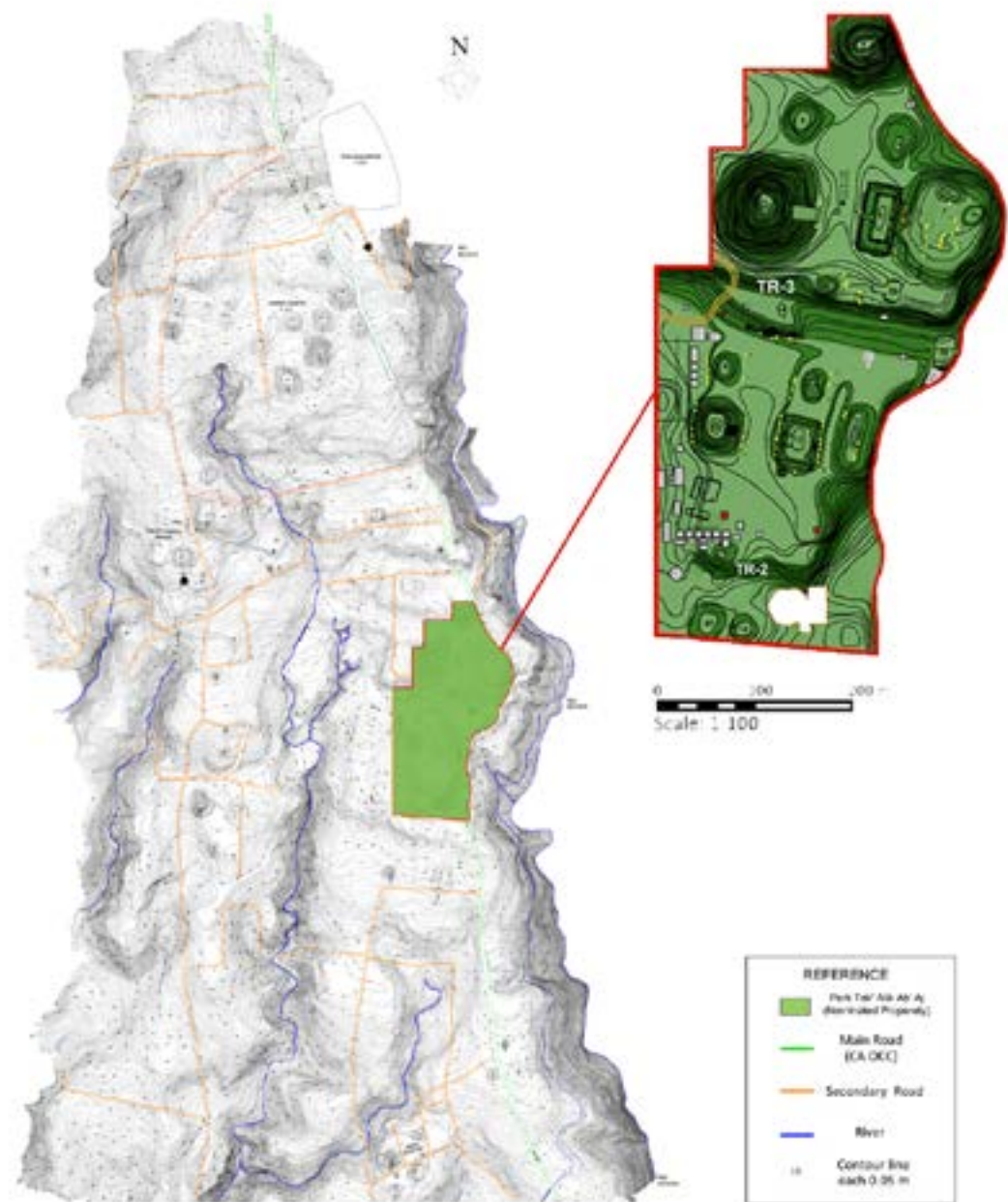


Fig. 38 Plan of the urban center of Tak'alik Ab'aj.

Public works

Sacred and monumental architecture since the beginning

At Tak'alik Ab'aj, architectural history is manifest par excellence in the superimposed sequence of building versions or modifications of structures in time, revealing, with few exceptions, that the same building held the entire history of occupation of the ancient city from the Middle Preclassic to the Late Classic. Construction material was taken from the surroundings: clay and stones from the river's edges. Building dimensions are large in horizontal extension and low in height, probably for anti-seismic purposes. Both features give the structures the character proper of the region which, added to the characteristic adaptation to the landscape, can be called architectural tradition of the Pacific coast, of which Tak'alik Ab'aj is an iconic example.

The public architecture program of Tak'alik Ab'aj is anchored since the beginning in the concept of creating sacred spaces enriched with sculptures, to function as scenarios where public acts were performed by rulers. The techniques and materials used for constructions and the buildings' forms change through time but their objective to conform sacred spaces together with sculpture was maintained. In other words, the building could have its own meaning itself, but as part of the group that makes the sacred space, the latter as a whole has its own meaning.

Sacred constructions were low ceremonial platforms made of clay during Middle Preclassic; small groups of these formed, for example, the Ball Court located southwestern of Central Group, one of the earliest "Ball Courts" known in Mesoamerica, oriented north-south and measuring 5 m wide by 23 m long, dimensions which continued to characterize later ball courts as well. This ball court has been reinterred in order to preserve it since it is built of clay.



Fig. 39 Excavation of the Ball Court in Tak'alik Ab'aj

Furthermore, there was monumental architecture since this early date, such as the clay Structure 2 which represents the first and most antique monumental construction of this city, being built around 800 BC at the beginning of Tak'alik Ab'aj's history, with a height of 9 m on the south limit of Terrace 4, right on the north-south axis ruling the plazas from this epoch. It is important to highlight that the city shared the concept of monumental clay architecture with other important early centers at this time, for example La Venta in México and La Blanca at the South Coast of Guatemala.

Another form of this type's monumental architecture are the low ceremonial platforms of wide extension but low height, such as Structure 7 at the east limit of Terrace 3 measuring 112 m by 79 m

by 3 m high; and Structure 13 copying the same location according to Terrace 2.

The Structure 7 is the largest and most sacred ceremonial platform of the Central Group. Besides having served as astronomical observatory register and having interred one of the most rich royal burials from Terminal Preclassic of Mayan area, keeps within its heart one example of the first ceremonial clay platforms known as "Estructura Rosada" (Pink Structure), and a previous version of Structure 7 called "Estructura Escalonada" (Stepped Structure) which presents five beautiful stepped bodies at the east facade, making itself one of the best conserved and eloquent examples of this antique construction technique.



Fig. 40 Excavation of the Stepped Structure inside Structure 7.

In the Late Preclassic, many but not all of the stepped rectangular platforms of up to three bodies, always with a heart of clay, present a coating of medium-sized cobblestones. Then, when the Early Classic began, larger stones were used and combinations of architectural elements were used such as basal wall and “talud” (inclined wall), inset corners or Mayan corner, ramps, and inset staircases with a central block. Structure 6 on Terrace 3 is one of the best examples of this distinctive form of monumental architecture characteristic of the region and in some way analogous to the central highlands, as occurs at the site of La Lagunita. This does not seem strange if one takes into account the alliance with the group of the Solano pottery tradition, evident in the ceramic and lapidary art of Tak'alik Ab'aj.

Fig. 41. Structure 6 shows the introduction of the Mayan architectural style.



Structure 12 on Terrace 2 is as well a beautiful example of architectonic evolution. The platform measures 56 x 40 m with a 5 m height. In the sequence of 5 clay remodelings and 3 with pebble stone coating, the desire to grow and improve their construction and aesthetic techniques according to the criteria of the time is perceived in the ancient builders. The first form of this simple five-body stepped platform was rectangular and had no stones. It was coated with stones and had a grand staircase until its sixth renovation. A wall was added on the four sides of the base of the building in the next renovation, bringing out the original corner. This helped a simple rectangle change into an interesting combination of lines that are called the maya corner or the tucked corner. The straight walls of the staircases were changed to inclined walls called slopes. The slope in construction represents a practical solution to ensure greater strength to the wall and, at the same time, it is an aesthetic resource. In the final renovation, the slopes were expanded to the center of the building, which reduced the width of the staircase.

The Late Classic apparently intended to create a new aesthetic tendency on the plaza facades. There was ostensible change in the appearance of the buildings by covering the architectural elements with a type of ramp made from cobblestones, but still exposing and forming part of this new concept the ancestral sculpted monuments of over 500 years old, and introducing fragments of sacred Preclassic sculptures in the construction of evacuation canals. Bigger cobblestone was employed as for a dressing and enhancement of some architectural elements such as the central stairways of clay Structure 5 on Terrace 3 and Structure 11 on Terrace 2. This is how the K'iche's found the city around 900 AD.

Fig. 42 Structure 5 shows a stone staircase.
This is how the K'iche's found the city around 900 AD



Development of hydraulic engineering: The administrators of water

Besides ceremonial architecture, the concept of public architecture includes infrastructure necessary for the center functioning. The domain over the management of water –supply for consumption and discharge of the excess– is a good indicator of the degree of development a society has achieved. At Tak'alik Ab'aj evidence of water management has been found since the beginning of its long history, and excellent examples for both mentioned categories. Furthermore, the multiple discoveries of canals have provided the opportunity to observe the evolution of construction techniques and materials employed, as well as the design of the canals through time, which goes parallel to architectonic development. A problem faced by the architects was damage from heavy rainfall, but this was resolved by means of implementing evacuation canals from the plazas and the buildings during the history of Tak'alik Ab'aj.

Canals were dug into the soil during Middle Preclassic, whilst made of cobblestone and clay during Late Preclassic. Of the latter, the usual pattern consisted of a rectangular U-shape canal where constructors placed stones against walls to form the laterals and sometimes one over them as the roof or cover. The floor was the same soil or consisted of a stone placed horizontally at the base. In early times, the space inside to conduct water was relatively small compared to that of Late Classic which could have tripled dimensions and bigger stones were used.

An important aspect antique engineers took care of was careful measurements for levels permitting water to run properly without damaging the construction. The same concept was applied to plazas where level was calculated to evacuate rain water to east and west limits conducting it to ravines and rivers at the bottom, avoiding floods

and strong streams. Efficiency of this old urban design is proved today when rain water evacuates from current surface.

There is no evidence of irrigation canals at Tak'alik Ab'aj, for these were not apparently necessary to maintain the crops due to high level of rain water typical of this piedmont zone; different from Kaminaljuyu in the central highlands.

The examples better representing both hydraulic systems prevalent at Tak'alik Ab'aj is "El Escondite" for ground water supply. Canal "Guacalitos" is a large-dimension canal built at the east area of south lateral access of Terrace 3 during the Late Classic, with the function of carrying rain water out from this terrace to the east part of Terrace 2, flowing then toward the ravine to Ixchiyá river. This canal was also restored and today still functions like long time ago. Another example is Canal "David" which had a sacred connotation during the Late Classic. It evacuated rain water from the south facade of huge sacred platform Structure 7 flowing to the south-east area of Terrace 3.

Astronomy The path of philosophy reflected in the sky and on the earth

The testimony left by antique astronomers at Tak'alik Ab'aj is found on the large ceremonial platform Structure 7, where two small buildings were constructed in the north sector. Structure 7A is located in the north-south central axis and Structure 7B perpendicular east of the central axis. Sculptures primarily of Olmec style, plain, some of Mayan style and zoomorphic were placed at central and south areas on the platform, distributed in three north-south lines more or less parallel toward Structure 7A related there to the central axis, which is itself the central axis ruling the Central Group.

Based on records of orientations of these three lines and previous archaeoastronomic studies, it has been proposed that the lines with monuments were oriented to constellations on the night sky and thus evidencing the ancient people of Tak'alik Ab'aj were observing the course of the stars in order to establish which ones were in stable position on the sky for timing year over year. The west line of 21° east of the true north was oriented –as grand Olmec city La Venta was– to the Big Dipper Constellation, forming an inverted trapezoid during Middle Preclassic, which according to Olmec culture represented the jaguar's mouth of the night sky. The central line of 23° was focused to Draco Constellation during Late Preclassic and the east line of 19° is proposed to associate the sidereal and the solar year.

From this data it was possible to confirm that 21° aiming the Big Dipper was the astronomical orientation taken as a reference guide to outline the Central Group at Tak'alik Ab'aj during Middle Preclassic, and probably the three lines once had the same orientation. Toward the end of Middle Preclassic the Big Dipper position was not stable and literally began to fall from the horizon whilst Draco position looked stable. When antique astronomers observed this, they have possibly decided to take Draco Constellation as a new reference, which can be seen as a dragon or serpent on the sky, re-focusing the central line of monuments to the brightest star Eta Draconis at the back of the serpent constellation.

It is noticeable that where central line continues to the north, a beautiful stela depicting a serpent, Stela 13, is standing right in front of Structure 7A. This stela was erected as part of a massive offering containing over 600 vessels which manifest the magnitude and importance of its relation with this astronomic orientation.



Fig. 43 Stela 13

This whole scenario becomes ever more interesting if we keep in mind that Olmec Culture had the jaguar subject as one most important and frequently represented in its art. That grand culture concluded during the end of Middle Preclassic and La Venta was abandoned about 400 BC. Since then, early Mayan culture starts to develop having among its iconic themes the representation and personification of the serpent. It can be considered that the three lines of monuments over Structure 7 represented – till do today– orientations' history to star constellations on the sky that ruled as reference points for timing during different cultural epochs, and those constellations kept a meaning in people's understanding of the universe that depicted on earth by means of art symbols and designs of sacred spaces.

Recurrent investigations at Structure 7 have revealed more information about development of observation to the sky in search for precise time record. Altar 46 "Piecitos" (Little Feet) is part of the east line of monuments, having on its surface two carved footprints oriented 115° east of true north, which corresponds to winter solstice on December 21st. This altar was –as Stela 13 was– part of a big offering of vessels dating to the end of Late Preclassic and beginning of Early Classic, indicating that during that time they decided to prioritize the course of the sun in their observations, that finally was the most exact way to count days establishing the solar calendar.

Sculpture

The power of the message carved on stone

The most powerful and subtle means to communicate ideas is art and in turn it can be expressed in different ways, appealing to all the human senses. In order to set forth concepts and symbols, coded messages legible to the group for which they were created, human beings are characterized by wanting to immortalize these through long-lasting materials. It is for this reason that, in archaeology, there is a proliferation of surviving pieces that carry these messages, carved with the materials that best resist the passage of time: rocks and stones in all their variations. At Tak'alik Ab'aj, predominant local rocks such as andesite and dacite are volcanic in origin. Of these, andesite was preferred for sculpture. Only two sculptures, plain Stela 18 and the Monument 27 with traces of wear and tear from sharpenings and small conic-shaped holes are made from gneis rock, imported from the highlands. Thus, communicating that not only the message of the monument itself, but also that of power and wealth make possible this expression of luxury, one of the most universal and common messages of world leaders. For lapidary activities, jadeite, iron pyrite, and hematite were preferred, all precious imported materials.

























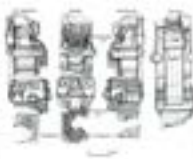


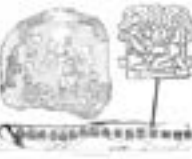


Tak'alik Ab'aj has a very particular history due to diverse cultural expressions, therefore may be called pluri-cultural. Furthermore, it manifested cultural diversity by means of a powerful "megaphone" carved on a long-lasting material, rock. The outstanding sculpture program developed by the ancient city is particularly impressive due to many sculptures in different styles and was the medium to communicate its history and different manners to understand the universe thru time and today.

The universe of 407 stone sculptures at Tak'alik Ab'aj (257 monuments, 89 stelae, and 61 altars) (see Annex IV.6) can be divided in the following categories: 216 plain monuments, stelae and altars that signal their meaning thru the intrinsic value of the rock itself; 26 monuments carved

with depressions called "Guacalitos", "Sharpeners" and small conic holes, bearing traces left by different works related to production process of stone artifacts, jadeite and some other materials, by grinding, sharpening, perforating, etc. These monuments are usually located close to small water sources and rivers since water was needed to do grinding and polishing work with some abrasive material such as the local volcanic sand, for instance. Nevertheless, certain monuments of these are placed in ceremonial areas. The most "speaking" category covers 141 sculpted monuments, stelae and altars (see Annex IV.6). They were produced by artisans in six different styles which might represent different cultural traditions, some developing parallel during the same cultural epoch, 40 Olmec, 41 Maya, 12 Potbelly, 13 Zoomorph, 4 Coastal, 17 Local and 14 undefined.

During Middle Preclassic the city produced a sculptural program following canons from Olmec tradition, being this the result of relationships with the grand Olmec center La Venta. It may be said that the interrelationship with that culture must have been strong since the sculptors at Tak'alik Ab'aj apparently implemented all different categories of Olmec sculpture when executing their work, reason why it displays tridimensional, boulder, high and low relief, petro carving and low relief stelae sculpture, alike La Venta. The most depicted themes and some of the most relevant of Olmec style at Tak'alik Ab'aj are boulder sculptures with personages emerging from the jaguar's open jaws, being the open jaws analogue to niches of human-animal duality or the transformation from animal to human being represented on boulder and tridimensional sculpture; animal representation, human head and colossal head on tridimensional sculpture, standing personages or in ball player position and low-relief stylized animals viewed in profile, being sculpted as petro carvings or on "incipient" stelae.

SERiation PROPOSAL OF EARLY MAYAN SCULPTURE AT TAK'ALIK AB'AJ

Phases		Carving technique								
Middle Preclassic 800 - 100 BC	Ixchiya 800 - 500 BC	...boulder ...tridimensional ...natural form								
	Nil I 500 - 350 BC	...high relief ...natural form								
	Nil II 350 - 100 BC	...low relief								
Late Preclassic 100 BC - 150 AD	Rocio 100 BC - 50 AD	...slightly modified								
	Ruth 50 - 150 AD	...prepared								

During the next epoch, Late Preclassic, a very different sculpture program appears, sculptors are immersed in the development of the concept of the early Mayan sculpture tradition which continued its course all through Classic Maya apogee. The first important change is noted in the predominance of low-relief and profile depictions, which were still carved on the natural form and surfaces of rocks, as the case of Altar 12. Feline features disappeared in the depictions of richly attired personages, in different fashion from their equals in Olmec style during

Middle Preclassic. A celestial band is set above personages and they are standing over a terrestrial band. Both celestial and terrestrial band could be rooted into the Olmec concept, developing from the niche representation. The first glyphic signs appear as complete-head figures and the sculpted theme began to be “framed”.

Altar 12



Monument 11

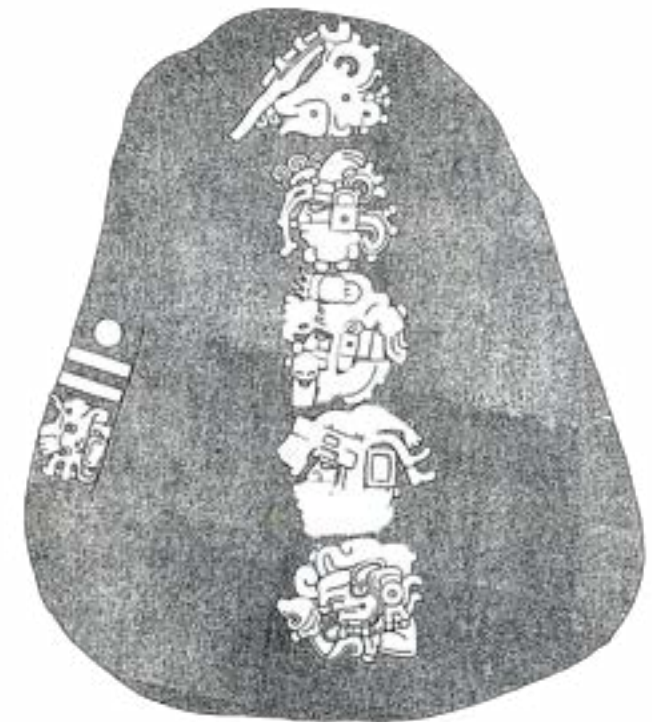


Fig. 45 First recorded writings in Tak'alik Ab'aj

With the next step the definition of Mayan style was finally established, the stela concept. Rocks were previously worked to a form with plain surface and a frame limiting the space on which the subjects were sculpted. Stela 2 is a beautiful example for an elaborated frame. Written texts and glyphs with Long Count dates represented by means of the dots and bars vigesimal system are added.



Fig. 46 Writing system represented in Stela 2

The Long Count or count of the katunes is a mesoamerican vigesimal system developed by the mayas to track time. Starting in the year 3113 BC, the Long Count is composed by an introductory glyph, followed by five numeral glyphs or periods of time based on 360-day years named:

Baktun	period of 400 years with 360 days each year
Katun	period of 20 years with 360 days each year
Tun	period of 1 year composed of 360 days
Uinal	period of 20 days
Kin	period of 1 day

Potbelly and Zoomorphic styles were also sculpted in this period, which can be considered as two parallel traditions to early Mayan style. Both former mentioned correspond to the boulder sculpture category. Boulder sculpture definition rests on the fact that the sculptor chose, used and respected to the most the rock's natural form in order to create the theme with a minimum of intervention over the stone. Since boulder sculpture is strongly represented in Olmec sculpture tradition, it is very probable that potbelly and zoomorphic styles could be a continuum of that concept until Late Preclassic. Both styles are widely spread on the Pacific Coast and the volcanic highlands.

Potbelly style, as its name indicates, represents obese personages sitting cross-legged or with semi open legs, swollen eyelids, prominent cheeks sometimes hanging down, usually unclothed, non-sexed, eventually wearing only a collar and earplugs, having the special characteristic of the arms resting on the prominent belly with the hands bending down. Sometimes only heads with these features are found within this style.



Fig. 47 Monument 99

Zoomorphic style indeed represents animals primarily associated to water, among which predominate toads, frogs and crocodiles depictions. Some of them are so nicely worked that they could be part of the tridimensional sculpture category.

Coastal style is very rare at Tak'alik Ab'aj; it is defined as tridimensional sculpture representing human heads with somewhat coarse qualities. The name was given because they probably belong to a later sculpture tradition extended on the Pacific littoral and the highlands.

Local style definition corresponds to petro carvings, which are rocks carved with figures and symbols made of simple lines like "graffiti". These are mainly located at the periphery of the city; they were given the name local because they probably were spontaneous expressions sculpted on rocks cropping out the surface. This type of representations is common and not related to a specific cultural tradition.

The sculpture tradition at Tak'alik Ab'aj was so amazingly prolific through a millennium, since Middle to Late Preclassic (800 BC – 150 AD) positioning it among the pre-Columbian cities in Mesoamerica displaying the richest sculptural programs. This asset allows archaeologists to observe accurately a very particular situation in Mesoamerican history: passing from Olmec cultural expression to the early Maya, which confers Tak'alik Ab'aj as a unique site in that history due to its agile and important partnership in the long-distance trade route system with Olmec cities during Middle Preclassic and then with the grand city Kaminaljuyu during Late Preclassic. However, it is visible that this sculpture tradition silenced at the beginning of Early Classic; sculptors no longer produced their work to transmit the important messages from rulers to people and visitors. A possible explanation comes from the effect of the long-distance trade system collapse at the beginning of this period.

Lapidary art:

The passion for miniatures and mosaics

Lapidary art is the other perfect medium to represent symbols of power. It was also a tradition cultivated by generations of craftsmen at Tak'alik Ab'aj applying two singularly important concepts: miniatures and mosaics. The material most prized by Mesoamerican cultures for its hardness, brilliance, and color was jadeite which came from the Motagua river valley and was the raw material par excellence to create unique works of art, since the history of Tak'alik Ab'aj began. During the Late Preclassic other materials that also possessed brilliance were added to create precious objects, these materials being iron ore, hexagonal hematite, and amber, special products that had to be imported from faraway lands such as San José Mogote – close to Monte Albán-, Oaxaca, or Chiapas.

The mosaic breaks a whole into fragments; then recreates the image by reuniting them, albeit leaving the persistent impression of fragmentation. Aside from this, it is difficult to produce a whole piece, be it of jadeite or iron ore, because the piece must be sculpted

from a portion of these materials. In some cases, it is impossible to know whether a piece was created from fragments or if a whole piece was split in fragments and put together again. In conclusion, this is an extravaganza of skills, materials, and, more than anything, many work hours by highly specialized craftsmen creating a sophisticated product with high added value which justly generated prestige.

The first artifacts of jadeite which called the attention at Tak'alik Ab'aj were part of a massive offering consisting of 150 jadeite mosaics, pendants (pectorals) and other pieces deposited in a vessel with a particular stepped fret design, which was found, besides other multiple offerings of vessels from western highland Solano Tradition into Structure 86 "Patio Hundido" at West Group of Tak'alik Ab'aj, in private property Finca Buenos Aires (currently Natural Private Reserve. At that moment, following the preconceived concept of funerary mask three were initially assembled from these jadeite mosaics, leaving one unassembled.



Fig. 48 Offering composed of jade mosaics

As with the discovery of the Burial No. 1 of Tak'alik Ab'aj, again the jadeite subject was present in the form of the interred ruler's rich apparel and specially the miniature ceremonial head of blue jadeite mosaics found in situ, exactly on the place where he carried it when he was alive, in the region between the thorax and the pelvis, could have possibly be hold it as a pectoral or on the ceremonial belt. These miniature ceremonial heads are profusely represented on Maya stelae as part of rich ruler attires, as it was found in the burial. At Tak'alik Ab'aj, on some sculptures these miniature ceremonial heads can be observed depicted on the belt, especially on Stela 5.



On the basis of this wonderful experience, the assemblage of the mosaics of the massive offering of jadeite mosaics from the West Group under the concept of miniature ceremonial head was proposed, making the test with the mosaics of the fourth "mask". It was confirmed that disassembled mosaics of four miniature ceremonial heads had been placed in this offering. Another find came out consisting of an offering of jadeite mosaics which together with other offerings and Solano Tradition vessels, from which one highlights with the display of a stepped fret design, had been placed in the middle of Structure 6 at Central Group of Tak'alik Ab'aj. These jadeite mosaics form a human miniature ceremonial head with an additional small head of a bat-jaguar. Observing closely, it can be detected on Maya stelae the miniature ceremonial heads with small animal headdresses, which can be a possibility to interpret this set. It can be thought as well that the human miniature head was part of the ceremonial belt and the small head of bat-jaguar was the pectoral.



Fig. 49 Miniature ceremonial heads of jadeite mosaics

The miniature ceremonial heads found at the West Group and in Structure 6 share some interesting characteristics. In both cases they were placed unassembled as offerings, in both cases there is a vessel directly related to a special stepped fret design of Solano Tradition, in both cases the offerings are accompanied by other series of offerings and vessels of the same ceramic tradition, and all these activities correspond to the beginning of the Early Classic proposed as the critical moment of Tak'alik Ab'aj's alliance with the western highland people. In short, they are six miniature ceremonial heads which were destined to be part of a series of offerings and vessels of a foreign ceramic tradition in the same cultural epoch at different places of the city. This suggests the possibility to think in a personage or ruler who could have been the one propitiating this offering activity, manifesting a great wealth and power that Tak'alik Ab'aj could have had during this time, probably as result of the mentioned alliance with the western highlands Solano Tradition which may be the reason why Tak'alik Ab'aj didn't have the same luck as Kaminaljuyu. To this personage, who might have had an excessive passion to collect these esteemed miniature ceremonial heads of jadeite mosaics, the archaeologists, alluding the vessels with the particular design associated to the offerings, have named him the "Lord of the Fret".

Both the sculptural and lapidary art traditions transmit to us two important things: they began at Tak'alik Ab'aj and developed for centuries with its inherent changes according to the cultural epochs by means of the creation of sculpture and lapidary art workshops or schools to pass on the knowledge from one generation to the next, continuing the tradition and implementing innovations in unison throughout a vast region of different peoples and cultures. This also speaks of leaders who, with the principles of the ritual market economy, generated a platform that sustained this universe of production and consumption of specialties that made possible the creation of over 400 sculptures, exposed in ceremonial spaces covering 13,550 m²,

according to approximate calculations of what the plazas "Tukur-B'alam" and "Tanmi T'nam" measured, not to mention the largest collection of seven exceptional miniature ceremonial heads of jadeite mosaics. In spite of the transcendental changes in ideological systems, sculpture and lapidary art remains sound, communicating the values of its times.

Ceramics

People's soul of clay

Ceramics is one of the archaeological materials that can get archaeologists closer to people living in the antique societies, since it is intimately related to commoners' home duties and rulers' palaces. Utilitarian ceramics can define a social group distinguishing from others, starting with the premise that a human group's identity is constituted by close cultural practices shared among its members. The cultural practices consolidate into cultural traditions thru time identifying this group in particular. One of these cultural practices is pottery production, which left its rich preserved legacy until our times. The form of production shows unified characteristics within the community that conforms a society to a defined cultural identity. Pottery production can reflect gradual changes that are natural in generational successions through time. Thus, it will always be possible to identify different people by their common ceramics. When a sudden change and/or assimilations or imitations of some characteristics in people's ceramics can be observed, they may be indicators that pottery was substituted by another or people were subjugated by a group with different cultural identity that imposes its own practices and cultural canons. Whilst sumptuous ceramics can reflect different forms of relationships performed by leaders or rulers among different people and cultures, result of import, exchange or gifts to each other. For this reason, elite ceramics is very susceptible to experience faster and more frequent changes.

Local ceramic tradition at Tak'alik Ab'aj is called Ocosito Tradition; it is present throughout all the long history of this ancient city. This means the same people kept living there along centuries, although transcendental changes were observed in other important cultural expressions. Moreover, gradual development of local Ocosito Ceramic Tradition, archaeological investigations have revealed that the city received groups of visitors staying for certain time at the periphery of the town at the beginning of some of the most important cultural epochs.

Middle Preclassic Phase Nii 500-100 BC Phase Ixchlyá 800-500 BC	
Late Preclassic Phase Ruth 50-150 AD Phase Rocio 100 BC-50 AD	
Early Classic Phase Castillo 300-500 AD Phase Alejos 150-300 AD	
Late Classic Phase Ralda 700-900 AD Phase Guzmán 500-700 AD	
Post Classic Phase Xab 1250-1524 AD Phase Guzmán 500-700 AD	

Fig. 50 Ceramic evolution in Tak'alik Ab'aj

The discovery of spectacular and humble ceramics with its vast variety in design, placed frequently in huge quantities in middens, offerings and burials, provides a glimpse of the importance of ceramic production in pre-Columbian cultures. The quality of materials used in its elaboration, the techniques of modeling and paintings, decoration applied prior and after firing, the conditions of firing by itself constitute the distinctive attributes to establish when and where each artifact was made and possibly who the potter was. The function of the artifact originates its design, with subtle variants of style; such is the case of the bowls, pans, and cantharus. Within the vast spectrum of clay objects are the figurines, earplugs, whorls, whistles, ocarinas, and flutes as well. The local ceramic tradition of Tak'alik Ab'aj is present all along the history of this ancient city, indicating a prevailing local population.

Offering “Las Muñecas” (The Dolls) deserves special attention. It is an offering placed in such a way that references the four cardinal points placed carefully on the funerary ritual of Burial No. 2, exquisitely modelled with clay and representing svelte and sensual young women and promising future mothers, all depicted naked, covered only by a delicate design of body paint with a flat posterior head product of cranial modification widely practiced since Olmec times, showing their rows of teeth in little semi-open mouths, a groomed hairstyle with a curl over the earplugs, shoulders, waist, wide hips, and youthful breasts. The intricate placement of these figurines suggests a theatrical representation of a combination between the birth of the world held by the four cardinal points and the usual path of the sun, representing the opposites death as life-giving: a sunset that makes way for sunrise or sowing a grain of corn which will later sprout: the sacred cycle of life.



Fig. 51 “Las Muñecas” Offering

Obsidian and lithic

Tools for every day and ceremonial activities

Tak'alik Ab'aj, like many Mesoamerican settlements, employed many devices for specific functions such as cutting, scratching, crushing, etc., made from the best possible quality of materials offered to carry out these activities. Among those materials is obsidian, which can be black, grey, brown or green in accordance with the source of the field's chemical characteristics. Obsidian artifacts are found profusely in archaeological diggings, indicating that they were often used and also important in everyday and ceremonial life. Tak'alik Ab'aj was supplied from the sources of El Chayal, San Martín Jilotepeque, and Ixtepeque in Guatemala, and the green obsidian came from Pachuca, Hidalgo, Mexico. Due to their durability and quality, El Chayal and San Martín Jilotepeque, respectively, were the most used during the history of the city.

Archaeological data from excavations in the residential area near "El Chorro" stream support the idea that Tak'alik Ab'aj was focused on manufacturing prismatic blades, since a considerable amount of debitage associated to that industry was found. Besides its use as an important device for diverse occupations in everyday life, and in workshops to cut and prepare objects made of other materials such as iron ore, obsidian and jadeite had a sacred meaning, being used in rituals and offerings. The sequence of offerings in a vertical axis, found at the center of Structure 7A, shows inside the filling covering Burial No. 1 an obsidian offering from El Chayal. It was placed along with six bowls from the Santiago ware, signaling the dignitary's burial position underneath. That sequence of offerings proves the importance ancestors had for the inhabitants of this city. In Structure 17 at the South Group, fragments of 13 blades of an average of 28 cm long and 1.7 cm wide were found. These blades possibly correspond to one single production from El Chayal. Some present slight retouching at the edges which remain very sharp. A very important fact: these are the longest blades found in Mesoamerica. Grinding stones and

manos were the instruments used to process food, medicinal plants, and diverse spices, as well for ceremonial offerings. Closed grinding stones were used for food requiring retention of liquid substances produced during the process of milling, such as miltomate, annatto, chile, or medicinal plants, as well as cacao, which required placing the grinding stone over fire to obtain the seed's needed viscosity. The open grinding stone was for food such as beans, and maize, as well as "nixtamal" (corn meal). These processes required evacuating the liquid produced during milling, since it was not necessary to keep it for food preparation.

Grinding stones, discarded in middens of residential and marketplace areas, present wear and tear or fracture hampering due to their original use, while others were reused with its inherent sacred meaning and integrated in construction fillings or as part of cobblestone floored plazas and offerings.

The so called "Ofrenda Piedras de Moler 1" (Grinding Stones 1 Offering) consisting of 53 fragments of these utensils deposited commemorating some 200 years later the foundational offering of the "Collar del Ancestro" in the center and at the bottom of Structure 6, corresponding probably to the jadeite necklace of the founder of Tak'alik Ab'aj ruling lineage. "Ofrenda Piedras de Moler 2" (Grinding Stones 2 Offering) consists of 6 fragments of these utensils commemorating the funerary place of the ruler of Burial No. 2, celebrated approximately 700 years after his demise.

Ancient craftsmen used six types of rocks to create such tools: andesite, dacite, rhyolite, pumice, sandstone of local origin, and imported basalt. The local raw material comes from the convergence of the Ixchiya and Nil rivers, running thru the sacred landscape framed to the northeast by the Chicabal, Siete Orejas, and Santa María volcanoes.

Even today we can see the use of the grinding stones in some homes at El Asintal village, although their manufacture is not the local type as in ancient times. This indicates that the traditions of preparing food in the region have been preserved for 2,800 years, although technological advances slowly displaced this legacy in stone which now begins experiencing decline.

Burials

Underworld lords

The apparent presence of the dead thru the idea of them in the minds of their relatives has had singular importance or apprehensive power over all cultures around the world along all times. The perception of this presence opposes the concept of abrupt end upon death, the disappearance from present. However, these opposed concepts seem to coexist. This is probably the reason for many cultures when persons die pass to a different form of existence and for that are accompanied by material objects distinguishing the persons once alive. What distinguishes them can be conceptualized as that most related to them from an emotional and practical point of view. If a personage was distinguished due to their consented powers, it may be believed that they should also be accompanied by those powers in the other existence. This is what archaeologist can find in a tomb or burial of a simple or powerful person; in consequence this find has the potential to get us close to what the dead represented in the society or cultural frame they belonged to.

Two of these important interred personages have been discovered so far at Tak'alik Ab'aj, whose apparels indicate they were important rulers for their times. These royal burials were positioned in sacred and special places. Both ruled in Preclassic times, the first at the very end of Middle Preclassic, Nil 2 Phase (350 – 100 BC); the second in final Late Preclassic, Ruth Phase (50 – 150 AD). At the moment of their

death, each one was dressed and accompanied with their attires and principal objects so they can still rule in the next life.



Fig. 52 Burial No. 2 at Tak'alik Ab'aj



Justification for Inscription

Justification for Inscription

The essence of the historic existence of Tak'alik Ab'aj is anchored in the reason of its foundation as an important commercial link positioned in the geographic strategic landscape at the piedmont of the Sierra Madre volcanic chain running parallel to the Pacific Coast of southeastern Mesoamerica. Long-distance trade route and relations management capacity played a pivotal role as catalyst for the development in economy, power and culture. Contact among different people and cultures eased the flow and appropriation of universal thought, which interestingly will be shared, but creatively re-invented in a local version, building the local identity articulating with others, within a wider concept of cultural hegemony. It appears that this scenario was appropriate for the emergence of early chiefdom at Tak'alik Ab'aj and the region, and the precocious development of an urban, technological and artistic program representative for the unique Pacific Coast cultural development.

The particular interest of Tak'alik Ab'aj over other Mesoamerican sites resides in the continuity of its development over many centuries (1700 years). At the beginning of its history Tak'alik Ab'aj was sharing values with the Olmec culture and reached its apogee with the successive flourishing of early Mayan culture. The wealth in sculptures, variety in styles, the development of early Maya writing, testify this extraordinary history. This ancient city, located at the slopes of the volcanic chain running parallel to the Pacific coast of southwestern Guatemala, is a cultural mirror where important events of the history of Mesoamerica are reflected, as the hegemony of the ancient Olmec civilization in Middle Preclassic times (800-350 BC), followed -after a significant period of transition (350-100 BC)- by the emergence of the Early

Mayan culture during the Late Preclassic (100 BC-150 AD). Tak'alik Ab'aj was one of the most important centers of intellectual, artistic and economic development of that region and suits as an outstanding representative “ambassador” for the unique and precocious South Pacific cultural development. Until today this city is a sacred place visited by the different indigenous groups who perpetuate their rituals according to their ritual and solar calendars established centuries ago.

The scenario of archaeological data provided from the different research lines signals the Pacific Coast as a propitious cultural corridor for the process which gave place to the emergence of Early Mayan culture, happening simultaneously in very distant places, as at Tak'alik Ab'aj at the Pacific South Coast, at Kaminaljuyu in the Central Highlands, not solely in the Lowlands to the north.

The described geographic setting was determinant for the role as an important long-distance trade center, which gave place to the distinctive and rich cultural expressions, imprinted in the historic scenario of the ancient cities sculptural program integrated into the urban design. Besides the economic strength gained from managing commerce, the contact with distant cultures interacting within this international exchange system propitiated the necessary tolerance and flexibility which fueled intellectual achievements, situating Tak'alik Ab'aj among the first cities in the Mesoamerican landscape actively participating in astronomy, the development of writing and Long Count calendar system, sophisticated lapidary art, as well as hydraulic engineering, a complex sculpture program, ceremonial and monumental architecture, and ball court. This utmost rich cultural

legacy replenishes in communicating the worldview, philosophy and religious thought and most importantly its transformation during time from one system (primal Olmec) to the development of another (Early Maya), thus enabling the spectator to read the change of thought, the evolution of an important chapter of Mesoamerican history of thought, and to witness the emergence of early kinship as a logical result of the long-distance trade route pulsating along the piedmont of the pacific littoral, and as such positioning Tak'alik Ab'aj at the avant-garde of the people who coined the Preclassic Mayan cultural patterns, celebrated over 500 years later in the famous and admired classic cities of the Mayan Lowlands.

The re-creation of universal concepts in the setting of the sacred landscape at Tak'alik Ab'aj is translated as a rich local artistic code in multiple material expressions, product of centuries of artisan traditions and schools. The history of thought of Tak'alik Ab'aj imbued in art and design of the urban, hydraulic, sculptor and lapidary manifestations and technology achievements are the embodiment of universal value in an exceptional local expression, which meet the criteria i, ii, iii, iv, vi, for which Tak'alik Ab'aj is being proposed.

3.1.a *Brief synthesis*

The ancient city of Tak'alik Ab'aj is located at the piedmont of the Pacific littoral of Guatemala. Its history endured over 1700 years, from 800 BC to 900 AD, and is bound to the special geographic condition of its location, which propitiated the interaction of Tak'alik Ab'aj in the long-distance trade route along the slopes of the volcanic Sierra Madre chain during Middle and Late Preclassic times. This connection otherwise created the facility of fluent exchange of goods and thoughts during time, which related the people of Tak'alik Ab'aj first with the Olmec culture and then with the successive Mayan culture. It is important to state that the local ceramic production of Tak'alik Ab'aj presents characteristics at its very beginning (800 BC) which relate

it to “inherited” traits of the Ocós ceramic tradition in Chiapas and for that these traits are denominated Ocós “derived” (Popenoe de Hatch 2004). The local ceramic tradition of Tak'alik Ab'aj, called Ocosito due to its southern frontier along the east-west running Ocosito river in the coastal plain, continued its uninterrupted development all along the lengthy history of this city. The steadiness of this ceramic tradition is an exceptional example to highlight the steadiness and permanence of the same people at Tak'alik Ab'aj, nonetheless the strong changes from Olmec to Early Mayan cultural expressions that can be observed specially in the exceptional corpus of the sculpted monuments, as well in lapidary art, which distinguish this site.

This change was happening at the end of the Middle Preclassic with the demise of the Olmec civilization, and is made visible at Tak'alik Ab'aj with the reinvention of the Middle Preclassic Olmec cultural expression with its artistic and aesthetic codes, fostering the creation of the Early Mayan concepts at the beginning of Late Preclassic, which basic elements will rule from then on the Maya culture. Tak'alik Ab'aj is like a laboratory, where the wealth of sculptures in particular, provides the opportunity to observe in detail how the gradual change was evolving from the previous concept to the new one. Tak'alik Ab'aj, as a “survivor” and witness, was an active actor of this crucial historic transition from Middle Preclassic to Late Preclassic, which appears to be seminal for the emergence and consolidation of the early chiefdom in Mesoamerican history.

The change from Olmec to Mayan public discourse based on visual language previously created, communicated a different world view, which is not only reflected in the extraordinary sculpture and lapidary art program, moreover in the architectonic concept, building technique and materials, and rituals, carefully covering and from then on commemorating the previous primary ceremonial low and pyramidal clay platforms, and foundational ritual offerings.

This testimony of the capacity of adaptation and innovation, and the pivotal conscience to keep and re-create the valued ancestral core elements of cosmovision from the past as vertebrae for the present -which appears to be the essence of the exceptional history of Tak'alik Ab'aj- is as well evident in the diverse and different archaeological remains, vestiges and discoveries. All of which testify the outstanding achievements in urban design, water management, creation of writing system and, combined with astronomic observations and mathematics, the calculation of time and calendars, of the ancient people of Tak'alik Ab'aj. The organizational and administrative capacity to develop these achievements highlights the emergence of the early chiefdom, specialized and centralized "government programs", with its "overseers", the nascent bureaucracy and royal court, under the rule of the first rulers.

Tak'alik Ab'aj, is the exponent par excellent of the cultural developments happening in this crucial and seminal epoch of Preclassic Mesoamerica and Maya Civilization, particularly within the league of the long-distance trade cities along the Pacific Littoral, for its multiple exceptional and outstanding material expressions of the development of nascent chiefdom in the Southern Maya Area. Among the cities, which, like the beads of an invisible necklace draw the trade route on the landscape, are in the Middle Preclassic, related to the connection with the Olmec culture and represented by Olmec style in sculptures and rock art, Chocolá, Reynosa, Lake Amatitlán, and Chalchuapa. In Late Preclassic, related to the connection with Kaminaljuyu and early Maya flourishing, El Jobo, Chocolá, El Baul, Kaminaljuyu and Chalchuapa.

The urban development of the city stretched over ten natural terraces characteristic of the landscape of the volcanic slopes. These natural terraces were conditioned to bear the four principal architectonic groups named after their location within the extension of the 6.5 square kilometers of the city: North Group, West Group, Central Group and South Group. The city grew rapidly during Middle and Late Preclassic

until Early Classic, when -apparently related to the incursion of western highland people named Solano by their ceramic tradition into Kaminaljuyu, in order to gain control over jadeite and obsidian resources. This apparently caused the collapse of the long-distance trade route and the disintegration of the Ceramic Sphere Miraflores.

As these highland people did not share the Preclassic sculpture nor writing tradition, this early achievements in literacy ceased in that whole area. In the light of this geopolitical scenario, it appears that Tak'alik Ab'aj decided to enter in direct contact with these highland people and for that benefited from this relationship, particularly evident in sophisticated and rich jadeite offerings related to commemorative and dedicatory rituals and magnificent stone revetment of some Preclassic buildings, as Structure 6. In Late Classic the city lived another change, interrupting its relations with the highland and reestablishing its contacts within the piedmont region, covering the Early Classic facades of the building with ramp like cobblestone revetment, but continuing with the sacred act of re-using ancient Preclassic sculptures integrating them in paved floors and evacuating canals, as Canal "David". At the beginning of Postclassic (900 AD) the expansion of the highland K'iche' people into the piedmont and coastal plains to gain control of the precious cacao plantations and ocean resources ended the history of this ancient and long-lived city. Surprisingly, after having survived several crisis during its long history, this time the population of Tak'alik Ab'aj left and the city fell in abandonment, and rapidly was covered by the humid subtropical forest, leaving the question open for archaeologists where these people went.

The Archaeological National Park Tak'alik Ab'aj, which extension of 15.38 ha (2.36% of the total extension of the site) was donated to the State of Guatemala, hosts the Central Group, the core of the huge ancient city of Tak'alik Ab'aj. The foundation of this park and purpose is to represent a tiny but outstanding "window" to look into and witness the extraordinary history of this ancient city. Intensive investigations

over three decades (1987-2020) have made possible to understand the essence and the reason of the particular “sharing” of the cultural expressions of two seminal civilizations of Mesoamerican history at Tak’alik Ab’aj, which makes it unique. The material remains, most of them discovered in situ and protected within the realm of this park represent by suffice the most outstanding and exceptional values for this nomination.

3.1.b Criteria under which inscription is proposed (and justification for inscription under these criteria)

In every aspect, archaeological (a), natural (b), anthropological (c) and cultural historic (d) –which is the synthesis of the first three-, Tak’alik Ab’aj represents outstanding universal values as follows:

- a) Archaeological aspect refers to material vestiges transmitting the thoughts of people who made them; those were and still are powerful messages that communicate the worldview, which is the way of understanding, explaining, ordering and “ruling” the world – transcending space and time – and is universal to humanity.
- b) Natural aspect, it is the environment, the landscape that once was and still is determinant to develop the archaeological and anthropological, which adopt proper characteristics according to the nature of this landscape.
- c) Anthropological aspect represents resilience of daily practice, ceremonial, ritual, and artistic, as live representation of this worldview today, which includes innovations introduced thru time by the people bearing this worldview.
- d) Cultural historic aspect is the product of this unique development that once occurred, which represents its archaeological history; and still happens today –in this “property” Tak’alik Ab’aj– as sacred place with

potential to transcend and interweave with current cultural expression.

The concept, the worldview, captured in the material vestiges at Tak’alik Ab’aj is universal, transversal all along human history, and unique in the very own form of expression it had taken shape and is reinventing itself.

The archaeological aspect is the material outstanding universal value that leads to the rest, and for that is the most important and meaningful regarding what Tak’alik Ab’aj represents. For this reason, it is the archaeological world that is being proposed for nomination as cultural heritage, the other aspects are complementing it.

The National Archaeological Park Tak’alik Ab’aj represents 1) Cultural heritage and 2) Sacred ancestral heritage, and possesses the characteristics contained in the following criteria of Outstanding Universal Value.

- (i) **represent a masterpiece of human creative genius;**

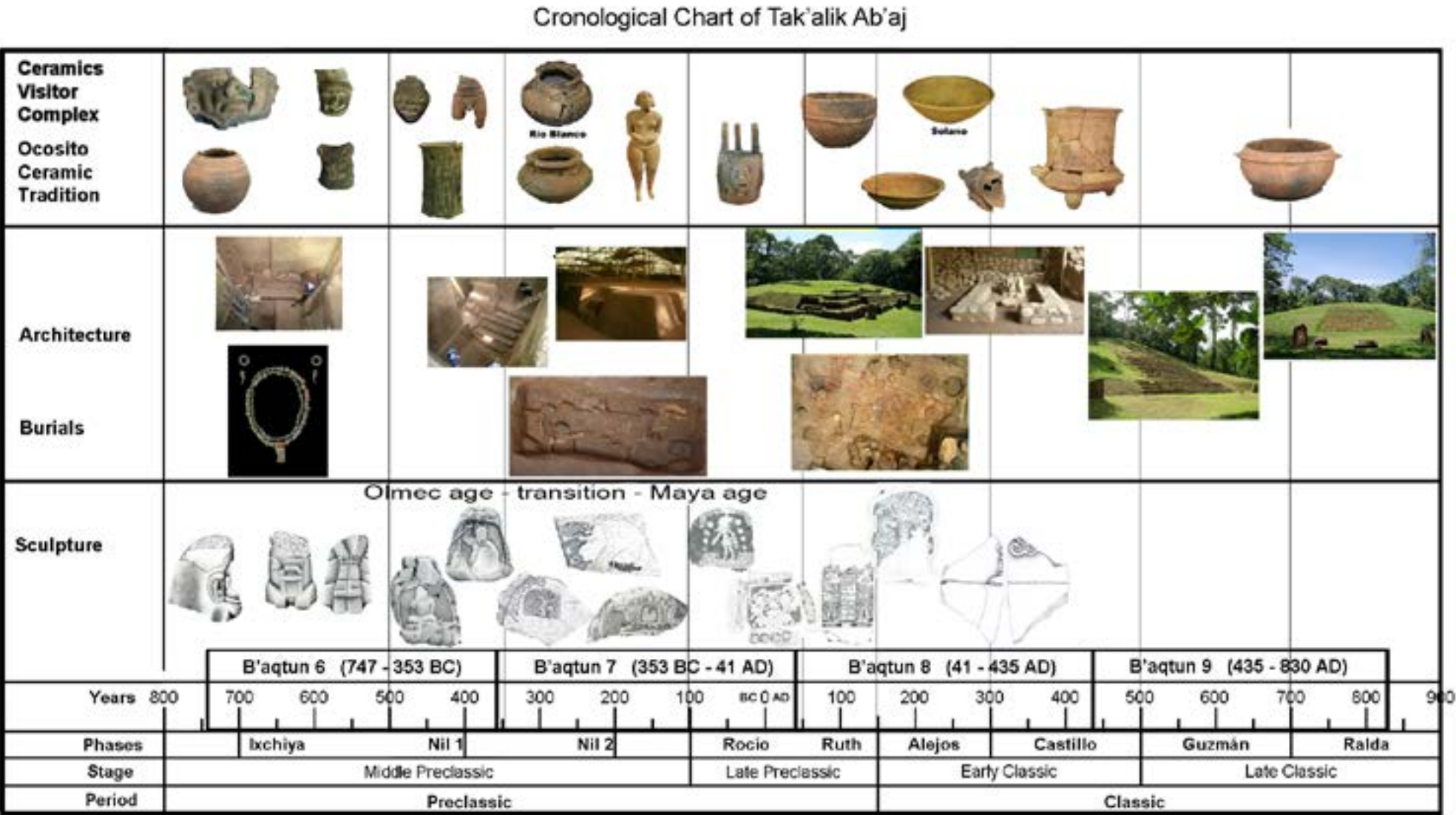
The evolution of sculpture and lapidary art programs – bearers of the changing political discourse from Olmec to Early Maya: Testimony of cultural transition

Tak’alik Ab’aj distinguishes itself from other pre-Columbian cities in Mesoamerica for its extraordinary quantity and diversity of Preclassic stone sculpture styles and sophisticated jadeite artifacts for early powerful rulers. These sculptures in stone and jadeite kingly symbols reflect the cultural wealth of the first and most splendid part of its history; and most conspicuously a continuum of centuries of sculpture and lapidary art tradition -in spite of profound changes in worldview, aesthetics and artistic pattern- was happening at the end of Middle Preclassic and beginning of the Late Preclassic.

This continuum reflects the transition from Olmec towards Maya cultural expressions, providing a unique opportunity to observe the gradual change of thought behind the artisans' chisel (Mon. 6, Altar 12), thus documenting that these phenomena was a gradual evolutionary process generated by the deliberated decision and plan

of these early rulers to undertake these changes. Tak'alik Ab'aj is like a laboratory where these change of thought (Mon. 23, Altar 12 and Altar 13) "literally sculpted in stone and jadeite" can be studied, and as such is exceptional in Mesoamerican history.

Fig. 53. Cronological chart of Tak'alik Ab'aj



(ii) exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design;

Monumental ceremonial architecture, sculpture, urban design and water management; exponent par excellence of Millenary Preclassic cities at the Pacific littoral: The urban setting for the first rulers

The National Archaeological Park Tak'alik Ab'aj hosts the Central Group of ancient pre-Columbian city Tak'alik Ab'aj which is outstanding for its antiquity and long history of 1700 years (from 800 BC to 900 AD), as well the very own character of the urban setting created since its Preclassic beginnings as a result of a perfect adaptation to the landscape of the Pacific coast corridor along the foothills of the volcanic chain. The ancient architects used and slightly modified the original terraced landscape descending from the volcanic piedmont to the coastal plains, in order to adapt a particular sophisticated urban design based on ancestral cosmogonic precepts as the cosmogram (four cardinal corner sides with the axis mundi center point), combined with astronomic orientations. The distinctive volcanic piedmont-landscape based urban design is enhanced with the use of the local volcanic andesite cobble stones used in Middle Preclassic for the interior structural strength and from Late Preclassic on for revetments of the massive in extension and low earthen platforms and pyramidal buildings, and represent a particular architectonic monumentality of

its own. This was shared, together with other cultural practices, within the league of Preclassic millenary cities forming part of and located at the long-distance trade route running along the pacific littoral and Tehuantepec Isthmus.

Archaeological evidence suggests this “sharing” of cultural practice as the result of the flow and exchange of ideas, through the conduit and boosted by the long-distance trade route running along this geographic corridor, which as such, translates into a cultural corridor. The exceptional and outstanding characteristics and richness in cultural remains found at Tak'alik Ab'aj, testify the very particular re-creation of ancestral universal concepts, urban, artistic, politic, economic and administrative development, and precocious innovation and advancement in early writing, mathematics and calendric systems, proper of this cultural corridor during the two seminal and groundbreaking cultural epochs of Mesoamerica's history, Middle and Late Preclassic, make Tak'alik Ab'aj suited to best represent this extraordinary cultural region.

As well as sophisticated water management systems seen in many canals designed for the underground water supply for residential areas (such as “El Escondite”) and the evacuation of excess rain water from the public ceremonial venues (like the “David” and “Guacalitos” canals), they attest to the high level of Preclassic urban planning.

Tak'alik Ab'aj is an exponent par excellence of this architectonic layout, which with the integration of a conspicuous sculptural program, created the ritual scenario for the public performance of the Preclassic incipient chiefdom.



Fig. 54. Central Group of the National Archaeological Park Tak'alik where there is evidence of different sculptural styles

(iii) bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared;

History of Science in Public Space and Ritual at the Astronomic observatory: Development of astronomy, writing and calculation of time (Long Count system)

During Middle and Late Preclassic the ancient astronomers at Tak'alik Ab'aj were performing important observations of the voyage of the constellations in the nocturnal sky and the daily course of the sun, leaving an amazing testimony of their record, as historic register symbolized in sculpture alignments on sacred platform Structure 7, offering placements, and massive cyclical rituals on specific calendric dates, as the winter solstice (Altar 46). The north-south astronomic orientation of the urban plan creates at the intersection with of the east-west axis, the Axis Mundi center point or "navel", located exactly there in the middle of the plaza. These observations, apparently were made simultaneously at other cities of the long-distance trade route along the Pacific littoral and Isthmus of Tehuantepec, and conducted to the exact counting of the days of the year, the basis for the Long Count and calendar system.

The archaeological evidence situates Tak'alik Ab'aj among the first ancient sites located along this long distance trade route to display these kinds of intellectual achievements during the Preclassic, as the history of astronomic observations, the Long Count system (Mon. 50, Stela 5 and 2), and the development of hieroglyphic writing represented by and sculpted in stone monuments (Mon. 11, Altar 12, Altar 48, Stela 87, Stela 5).

(iv) be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;

Open air museum: architectonic and sculptural scenario for political, ideological and historical discourse – Sculpture Bearer of the Ancestor

What calls most powerful the attention in Tak'alik Ab'aj is the display of sculptures of different styles placed in front of the facades or top of the buildings.

The west facade of Late Preclassic Structure 12 at the Central Group of Tak'alik Ab'aj displays a composition of multiple sculptural styles of the monuments developed over a span of almost a millennium. Maya style Stela 5 at the center, portrays two interacting Maya rulers with two Long Count dates anchoring it in time at the end of Late Preclassic (126 AD/103 AD). This stela is escorted at it's both sides by two monuments representing aquatic animals, and at both ends of the facade, two Middle Preclassic Olmec style monuments (Mon. 8, Mon. 67), sculpted with characteristic representation of personages (rulers) emerging from the open maw of a jaguar creature frame the scene to the north, and to the south two boulder sculptures of a human head (Mon. 65) and an owl (Mon. 9). The Olmec style monuments were extracted from its original placement to form part of this historic façade or "open air museum" in the Late Preclassic. The act of re-use and re-assemblage and combination of sculptures of different styles and previous epochs from the end of Late Preclassic and later on for public display in the architectonic scenarios, indicate the intention to resume and evoke the past and create a historic discourse, particularly in the advent of times of crisis.

This as well is particularly evident in the Sculpture “The Bearer of the Ancestor”, which as one piece of sculpture represents an early Mayan ruler with his cultural Olmec predecessor on top, who again carries on his shoulder his ancestor.

The construction of historicity and ancestor worship through public display as part of the sculpture and ritual program is particularly conspicuous at Tak'alik Ab'aj and appears to be a central element in its long history of 1700 years of occupation.

(vi) be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance. (The Committee considers that this criterion should preferably be used in conjunction with other criteria);

Resilience of the Sacred Rituals: current ceremonial life, survival of ancient sacred calendars and Mesoamerican ancestral cosmogonic symbols

Tak'alik Ab'aj in the imaginary of the indigenous people Tak'alik Ab'aj has been recognized and identified as sacred place of the ancestors and specific spots yielding special energy, which are designated as locations for ritual performance.

The archaeological remains of ancient city Tak'alik Ab'aj are located in private property. Before the initiation of the research and conservation works at the National Archaeological Park Tak'alik Ab'aj, the indigenous secretly visited these places. Today they can openly perform their ritual traditions at the Park, at the locations they have chosen to perform their rituals following specific days of their sacred calendars.

The predominant ethnic/linguistic groups are k'iche, mam, kaqchikel and tz'utujil. Annually an average of 250 ceremonies is held with the participation of more than 1760 people (see Section 5.h Visitor facilities and statistics). The careful register of the multiple rituals performed at the site (over the last three decades), provide information about the dates, motifs and materials used in their performances and highlights details that confirm the perdurance and resilience of the 260-day sacred calendar and 365-day sun calendar, ritual protocol and worldview.

As documented in archaeological excavations over two millennia ago with arrangements of ceramic vessels (Offering “La Niña” [The Girl]), the figurines of Offering “Las Muñecas” (The Dolls, Burial No. 2), or sculpted in stone (Mon. 253b), today the rituals initiate with the performance of drawing the cosmogram or K'an cross with sugar, and evoke the ancestors, accompanied with the inexorable integration of different modern syncretic elements (Schieber de Lavarreda et al. 2018: 71 Fig. 3; Schieber de Lavarreda 2016a: 21 Fig. 2).

At present, the National Archaeological Park Tak'alik Ab'aj is an important sacred ancestral place for the current Mayan people, where they perform safely and freely their ceremonial rites and as such perpetuate their ancestral rooted spirituality.



Fig. 55 Preparation and celebration of Mayan ceremonies inside the National Archaeological Park Tak'alik Ab'aj

3.1.c Statement of Integrity

Due to the particular history of the ancient city Tak'alik Ab'aj, which was abandoned around 900 AD and hence was covered by dense vegetation, the physical integrity was ensured for the centuries to come. Until modern times the shifting trends in agriculture, from banana to coffee plantations and currently combined with rubber, have not caused a significant impact, as these crops do not reach the archaeological levels in the ground. As well, the eruption in 1902 of Sta. María volcano, which bore the volcano Santiaguito, added an additional protective layer on the ground under which the ancient ruins were hidden. In addition to this situation, it is of crucial importance that the whole extension of 650 ha of the ancient city lies within five traditionally established and family-owned coffee plantations. As private properties provide security and restricted access, the hazard of looting is practically zero. As well, maintaining its conditions as farms, no massive constructions and other kinds of development have affected the cultural remains. Until the primary seasonal archaeological excavations of University of Berkeley, California (1976 – 1981) and thereafter the donation of the owner of Finca Santa Margarita which provided the unique opportunity to create the National Archaeological Park Tak'alik Ab'aj (1987), the excavations encountered the archaeological remains in quite pristine conditions. As such, the concept of a multidisciplinary approach in research and conservation, including the natural environment, was one of the primary guidelines of this Park, ensuring an immediate attention to take care of the ancient buildings and sculptures with a permanent program for their conservation. As well, during 33 years the excavation and conservation program has produced a complete and vast platform of knowledge and documentation about the considerable inventory of the exposed and recovered material remains. The wealth of evidences and information of two and a half decades all year round work provides the unique opportunity to be able to correlate the archaeological stratigraphy with architecture, sculpture, ceramic, lapidary art, lithic tools, astronomy,

urban design, landscape modifications and water management infrastructure, and cross check the data, as well to accomplish intense and profound study of each, which has produced a singular solid base for the most assertive archaeological interpretation and restoration. (See Annex IV Inventories).

3.1.d Statement of Authenticity (for nominations made under criteria (i) to (vi))

Due to the described special pristine conditions of the site and wealth of examples of each of the multiple diverse cultural remains, their characterizing particular attributes as well testify a high degree of intactness in form and design (as the buildings and sculpture), no alteration in materials and substance, use and function, and traditions, techniques and management systems (as the building and sculpting traditions, lapidary and lithic production techniques, and water supply and evacuation engineering), unless the modifications are product of the proper historic development, as for example the change through time in style (Olmec to Maya), form, location (re-location) and use (re-use) (sculptures in architectonic settings). The careful conducted excavations, painstaking documentation of the archaeological evidence and utmost respectful stabilization and conservation (see section 4.a), as well the constant monitoring of the condition of the buildings, sculptures and any other kind of material cultural remains, are aimed to provide the conditions which allow to maintain the highest possible degree of authenticity of the cultural heritage. The quite exceptional condition of an uninterrupted continuity of the operative capacity of the National Archaeological Park Tak'alik Ab'aj has and is providing a controlled caretaking from excavation to exposition.

It has to be mentioned that in the case of particular iconic sculptures, as Stelae 5, 13 and 71, Altars 30, 36-38, 46 and 48, and Monuments 163, 188, 191, and 215-217, in order to guarantee their conservation and

avoid further process of deterioration, copies have been placed in the original location without affecting the authenticity of the scenery and the original monuments have been removed under the shelter of a natural open hut, where they are exhibited meanwhile the construction and startup of the operation of the Site Museum “El Caracol del Tiempo” José Luis Ralda González will be concluded.

3.1.e Protection and management requirements

The cited donation of land to the Guatemalan State and mentioned legal framework, particularly the Declaration as National Heritage, and mainly the existence of the administrative and operative facility provided by the institution of the National Archaeological Park Tak'alik Ab'aj, dependence of the Ministry of Culture and Sports, under the administration of the Head Office of Cultural and Natural Heritage/ Institute of Anthropology and History (IDAEH), with its annually assigned budget, and well organized operative units during 33 years has been the guarantee for its thoughtful research, careful designed conservation policies and integral maintenance program, as well as visitors service. Most important to mention is as well the local personnel, the majority with over two decades of experience in their assigned functions. Besides this important quality, they have developed a high degree of attachment and sense of responsibility in taking care of all aspects of the cultural and natural heritage safeguarded in the Park.

Ensuring the uninterrupted continuation of operability of the National Archaeological Park, and forging local young human capacities to succeed the elderly personnel, as well with a gradual growing sympathy and interest on behalf of the local population and public institutions, is and will be the best strategy to safeguard the cultural and natural heritage of Tak'alik Ab'aj. The involvement of the local population as well implies to make use of their right to take the corresponding

decisions on behalf of the kind of development best considered for their locality, as their responsibility. The creation of a non-governmental organization, as a cultural association or foundation, will encourage in order strengthening the involvement, voice and vigilance of the population in support of the National Archaeological Park.

The current Management Plan 2021-2025 (see annex II.14) was designed to take into account the Operational Guidelines for the Implementation of the World Heritage Convention WHC.19/01 10 July 2019, adapted to the condition of candidacy for nomination and the elaboration of instruments to optimize operative quality, stability and capacity to protect and conserve the cultural heritage bearing the universal exceptional values constituting the proposed criteria i, ii, iii, iv, vi, and to strengthen the sense of belonging and identity of the local populations, particularly children with a socializing program. Most important will be the initiative to forge the category of independent accounting capacity in order to minimize exposure to budget fragility and limited implementation capacity, as shifting politic trends impacting public administration appears to be inevitably one of the most conspicuous threat. Part of this plan as well is the permanent protection and conservation program and periodic monitoring parallel to the visitor's capacity, and training and professionalization of the personnel. The conclusion of the construction and startup of the operation of the Site Museum Tak'alik Ab'aj “El Caracol del Tiempo” José Luis Ralda González will be essential to enhance protection and conservation facilities and the educational program.

3.2 Comparative Analysis

The reason to begin formal research at ancient site Tak'alik Ab'aj situated in the particular landscape of the piedmont of the volcanic cordillera running parallel to the Pacific littoral, were the first records of 18th century travelers whose attention was called by the tips of sculptures emerging from the fertile soil hidden in dense coffee plantations. The themes recorded on the huge sculptures bore early Mayan iconography and was recognized as such and discussed by renowned archaeologists.

Nonetheless, there was a variety of styles depicted on the sculptures, such as magnificent full round and boulder sculptures portraying Olmec themes and style. Graham (1992) was among the first to identify the co-existence of these two very different styles corresponding to two seminal civilizations of ancient Mesoamerica, Olmec and Maya. This was the question to be answered by the systematic research projects, University of Berkeley, California UCB conducted from 1976-78 by Robert Heizer and John Graham, and later by the National Archaeological Project/Park Tak'alik Ab'aj from 1987 to present. By now, the more than three decades of research have shown multiple lines of evidence, with the explanation about the reason of this co-existence of different styles in Late Preclassic setting, which is the result of the importance of ancestor worship and history for the ancient people of Tak'alik Ab'aj, resumed and publicly displayed with the ancient "Open Air Museum" of Structure 12 (see criterion iv).

The outstanding facets of Tak'alik Ab'aj's cultural remains, the urban layout, its astronomic orientation, the combination of the public spaces and architecture with a prominent sculpture program -in pristine state of conservation-, as well as the length of its occupation (history) can be compared with other archaeological sites of the

Preclassic centers of the long-distance trade route league cities nestled at the piedmont of the volcanic chain running parallel to the Pacific coast who share similar geographic conditions, climate and natural resources, similar adaption to its characteristic landscape, building and sculpting materials and techniques, flow of migrations, goods, ideas and cultural practices -the latter interestingly with the development of local recreation of these ideas at each league city. Nonetheless, at Tak'alik Ab'aj the magnitude of each of these cultural expressions is superlative and unique, for example the quantity and diversity of styles of the sculpture and jadeite lapidary art, and ritual practice correlated to the architectonic layout, based on astronomic conventions synthesized in cosmogonic symbols.

There are cities in Mesoamerica, which began their prodigious development in Middle Preclassic coeval to/or interacting with the Olmec culture hegemony, continuing without apparent troubleshooting, solving various internal and interregional geopolitical crisis, into the Late Classic, bridging almost two millennia of occupation. That is why these cities are tagged as Millenary cities. After or during the demise of the Olmec civilization, these cities did not cease, but appear to flourish undertaking essential changes reflected in urban setting, public building and eventually creating sculpture programs, reorientation of commercial ties, and aesthetic and artistic codes to represent symbols of the core ancestral world view, as the cosmogram. This scenario signals the consolidation of the own identity of these long distance trade league cities, each in their own original cultural region, particularly well documented in Tres Zapotes, Tabasco in the very same Olmec heartland; Chiapa de Corzo, Izapa, Chalchuapa, and Tak'alik Ab'aj.

There are other Millenary cities, as Seibal and the world heritage site Kalakmul located in the Maya Lowlands, Monte Albán in the Oaxaca Valley, and Copán, Honduras, with a vastly different landscape and

building programs, according to the geographic setting and natural resources. Nonetheless, Tak'alik Ab'aj is the only millenary city, which has shared in outstanding magnitude the pan-Mesoamerican ancestral worldview with the Olmec Culture codified in Olmec aesthetic and artistic canons, and then undertook the smooth transition to the Early Mayan cultural expression. It must be stressed out that these ancestral symbols in present day ritual practiced by the different ethnics of the indigenous peoples maintain the core element of meaning and design.

Some particular examples for similarities in urban layout are: the chiapan sites Finca Acapulco, San Isidro and Chiapa de Corzo with its Middle Formative Chiapa de Corzo Pattern (MFC), shared with La Venta, Seibal, and Tak'alik Ab'aj, among others. For the combination of architecture and sculpture to create "scenarios", the following cities stand as good and well-preserved examples: Izapa, Chiapas, Mexico, situated in cacao plantations, and Santa Leticia, El Salvador, in coffee plantations, and the distant and partially well-preserved city La Venta in Tabasco at the Gulf Coast of Mexico.

In Mesoamerican history there are cities which display the magnificence of Olmec civilization and others the Mayan civilization. During the second part of the Middle Preclassic (500-350 BC) La Venta shows the same effervescence of changing ideology in its sculptural program as in Tak'alik Ab'aj (Schieber de Lavarreda and Orrego Corzo 2010c). The variety of categories of Olmec style sculptures located at La Venta is present as well as at Tak'alik Ab'aj, revealing a tight connection between both cities in the Middle Preclassic. Nonetheless the transformation into another cultural expression happening at Tak'alik Ab'aj during the "transition" (350-100 BC), did not take place at La Venta, as the city was abandoned. Hence early Mayan cultural patterns began to flourish from 100 BC to 150 AD, in the so called Southern Maya Periphery at early Mayan cities, like El Jobo,

Tak'alik Ab'aj, Chicolá, El Baúl at the piedmont along the littoral, and particularly Kaminaljuyu in the central highlands of Guatemala, the latter with analogous strategic located cities connecting the highlands, Chiapa de Corzo in Chiapas, Mexico and Chalchuapa in El Salvador.

To this date, the ancient city Tak'alik Ab'aj is the only one found which displays Olmec and Maya cultural expressions, because of the evolution of human history of thought. This evolution or transition can be traced in the sculptural program, which shows in detail the change of thought behind the chisel of the artist.

The archaeological record of the ancient city of Chiapa de Corzo, testifies in an approximate coeval time span (500 – 350 BC) a transition as well, leaving behind cultural patterns shared with the Olmec hegemonic culture and developing its own Zoquean cultural expression and identity.

All mentioned ancient settlements in the highlands have been significantly affected by modern urban development, except for Tak'alik Ab'aj maintaining in its complete 650 ha extension its ancient ruins intact, still covered by the different owner's plantations. In the tiny 15.38 ha extension of the donated land for the Archaeological National Park Tak'alik Ab'aj, its pristine ancient vestiges have been excavated and restored to be able to show, like through a window the unique character of this ancient city, an outstanding representative of the millenary cultural development along the Pacific littoral.

Throughout history, plenty of remarkable cities have developed in strategic geographic locations, taking advantage of this special condition, to ease as well as control the flow of commercial goods being transported by sea, or land. The latter providing wealth and political power, ideal conditions to propitiate cultural exchange, tolerance and cultural fusion, prodigious development in arts and

technological innovations. Often, political power and wealth gave place to control such strategic points.

Tak'alik Ab'aj is an example par excellence of the long distance trade system designed to provide precious raw material and exotic prestige goods for the ruling leaders of early pivotal power centers of Mesoamerican history; as for example in Middle Preclassic, the important Olmec site La Venta at the Gulf Coast of México and in Late Preclassic, the highland city Kaminaljuyu. As a member city, the archaeological wealth preserved highly intact at Tak'alik Ab'aj provides an exceptional opportunity to learn about these kinds of cities tied in the hierarchic organizational trade system.

The geomorphologic conditions of the Pacific piedmont corridor at the slopes of the volcanic chain running parallel to western coast of the American Continent, presents unique characteristics to the Macro cultural area of the Pacific Fire Ring.

3.3 *Proposed Statement of Outstanding Universal Value*

3.3.a. *Brief synthesis*

The ancient city of Tak'alik Ab'aj has an extension of 15.38 ha, and it's located at the piedmont of the Pacific littoral of Guatemala. Its history of over 1700 years, from 800 BC to 900 AD is bound to the special geographic condition of its location, positioned in the strategic landscape on the hillslopes of the Sierra Madre volcanic chain running parallel to the Pacific Coast of southeastern Mesoamerica.

The continuity of its development over many centuries is a cultural mirror where important events of the history of Mesoamerica are reflected, as the dominance of the ancient Olmec civilization in Middle

Preclassic times (800-350 BC), followed -after a significant period of transition (100-150 BC)- by the emergence of the Early Mayan culture during the Late Preclassic (100 BC-150 AD).

The commercial long-distance trade route and relations management capacity, played an important role for the economical and cultural development. The contact among different people and cultures eased the flow and appropriation of universal thought, which interestingly was shared, but creatively re-invented in a local version, building the local identity as well as sharing it with others, within a wider concept of cultural dominance.

It appears that this scenario was appropriate for the emergence of a chiefdom at the site and the region, and the precocious development of an urban, technological, and artistic program that acts as an “ambassador” for the unique and precocious South Pacific cultural development.

To this day, this city is a sacred place visited by the different indigenous groups who perpetuate their rituals according to their calendars established centuries ago.

3.3.b. *Justification for criteria*

Criterion (i): Tak'alik Ab'aj distinguishes itself from other pre-Columbian cities in Mesoamerica for its extraordinary quantity and diversity of Preclassic stone sculpture styles and sophisticated jadeite artifacts for early powerful rulers.

This continuum reflects the transition from Olmec towards Maya cultural expressions, providing a unique opportunity to observe the gradual change of thought behind the artisans' chisel, thus documenting that these phenomena was a gradual evolutionary

process generated by the deliberated decision and plan of these early rulers to undertake these changes.

Criterion (ii): The ancient architects used and slightly modified the original terraced landscape descending from the volcanic piedmont to the coastal plains, in order to adapt a particular sophisticated urban design based on ancestral cosmogonic precepts as the cosmogram (four cardinal corner sides with the axis mundi center point), combined with astronomic orientations. Tak'alik Ab'aj is an exponent par excellence of this architectonic layout, which with the integration of a conspicuous sculptural program, created the ritual scenario for the public performance of the Preclassic incipient chiefdom.

Criterion (iii): During Middle and Late Preclassic the ancient astronomers at Tak'alik Ab'aj were performing important observations of the voyage of the constellations in the nocturnal sky and the daily course of the sun, leaving an amazing testimony of their record, as historic register symbolized in sculpture alignments.

Criterion (iv): What calls most powerful the attention in Tak'alik Ab'aj is the display of sculptures of different styles placed in front of the facades or top of the buildings. The Central Group of Tak'alik Ab'aj displays a composition of multiple sculptural styles of the monuments developed over a span of almost a millennium. The Olmec style monuments were extracted from its original placement to form part of this historic façade or “open air museum” in the Late Preclassic. The act of re-use and re-assemblage and combination of sculptures of different styles and previous epochs from the end of Late Preclassic and later on for public display in the architectonic scenarios, indicate the intention to resume and evoke the past and create a historic discourse, particularly in the advent of times of crisis.

Criterion (vi): Tak'alik Ab'aj in the imaginary of the indigenous people

has been recognized and identified as sacred place of the ancestors and specific spots yielding special energy, which are designated as locations for ritual performance.

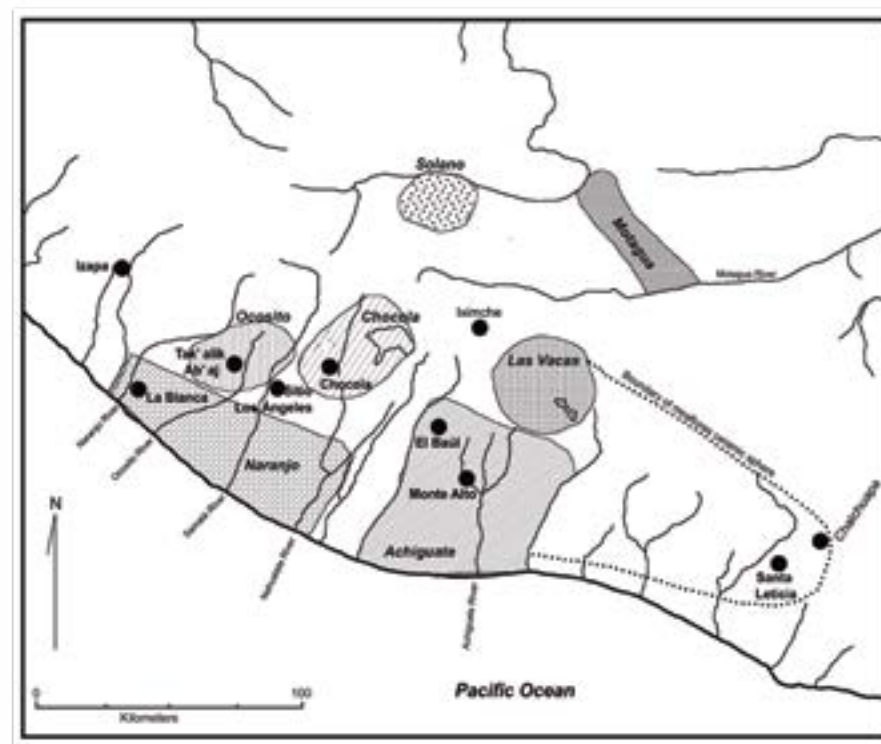


Fig. 56. Location of sites in the South Coast linked to Ceramic Traditions

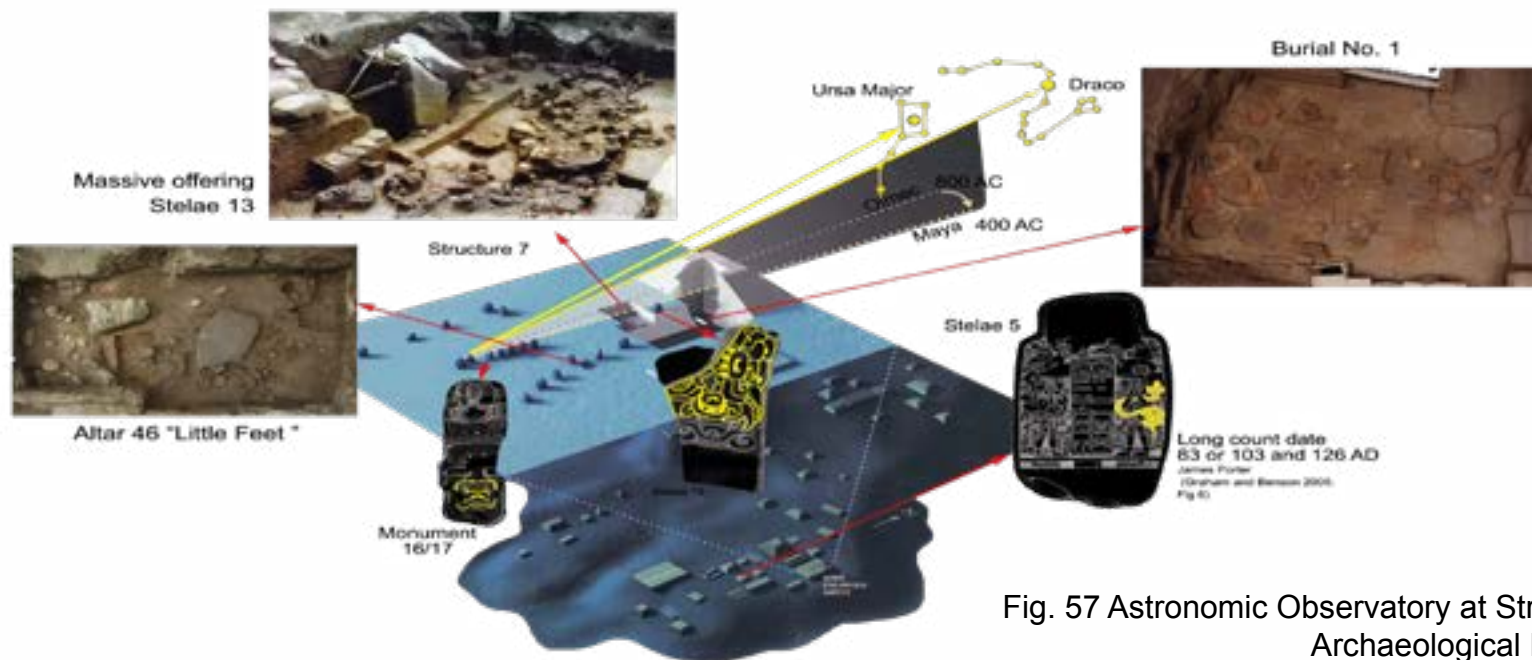


Fig. 57 Astronomic Observatory at Structure 7, National Archaeological Park Tak'alik Ab'aj

Ceremonial Placement
(2" magnetic north) of
five miniature vessels in
an upside down position,
as the first movement
in the ritual protocol
of the offering "La Noche"
The Girl Tak'alik Ab'aj



Alternative
Offering/ritual
done with sugar
(Maya Ceremony
February 20, 2015)

The Cosmogram



Placement of 8 figurines Offering "The Dots"
according to ritual protocol
chronography formalization of the
ancestral conception of the world: Cosmogram



Fig. 58 The Cosmogram in the archaeological remains and the current ceremonial rites at Tak'alik Ab'aj

3.3.c. Statement of integrity (for all properties)

Due to the particular history of the ancient city Tak'alik Ab'aj, which was abandoned around 900 AD and hence was covered by dense vegetation, the physical integrity was ensured for the centuries to come. Until modern times the shifting trends in agriculture, from banana to coffee plantations and currently combined with rubber, have not caused a significant impact, as these crops do not reach the archaeological levels in the ground. As well, the eruption in 1902 of Sta. María volcano, which bore the volcano Santiaguito, added an additional protective layer on the ground under which the ancient ruins were hidden.

The wealth of evidences and information of two and a half decades all year round work provides the unique opportunity to be able to correlate the archaeological stratigraphy with architecture, sculpture, ceramic, lapidary art, lithic tools, astronomy, urban design, landscape modifications and water management infrastructure, and cross check the data, as well to accomplish intense and profound study of each, which has produced a singular solid base for the most assertive archaeological interpretation and restoration.

3.3.d. Statement of authenticity for properties nominated under criteria (i) to (vi)

Due to the described special pristine conditions of the site and wealth of examples of each of the multiple diverse cultural remains, their characterizing particular attributes as well testify a high degree of intactness in form and design (as the buildings and sculpture), no alteration in materials and substance, use and function, and traditions, techniques and management systems (as the building and sculpting

traditions, lapidary and lithic production techniques, and water supply and evacuation engineering), unless the modifications are product of the proper historic development, as for example the change through time in style (Olmec to Maya), form, location (re-location) and use (re-use) (sculptures in architectonic settings).

3.3.e. Requirements for protection and management

The cited donation of land to the Guatemalan State and mentioned legal framework, particularly the Declaration as National Heritage, and mainly the existence of the administrative and operative facility provided by the institution of the National Archaeological Park Tak'alik Ab'aj, dependence of the Ministry of Culture and Sports, under the administration of the Head Office of Cultural and Natural Heritage/ Institute of Anthropology and History (IDAEH), with its annually assigned budget, and well organized operative units during 33 years has been the guarantee for its thoughtful research, careful designed conservation policies and integral maintenance program, as well as visitors service.

The current Management Plan 2021-2025 is adapted to the condition of candidacy for nomination and the elaboration of instruments to optimize operative quality, stability and capacity to protect and conserve the cultural heritage bearing the universal exceptional values constituting the proposed criteria i, ii, iii, iv, vi, and to strengthen the sense of belonging and identity of the local populations, particularly children with a socializing program.



State of Conservation and factors affecting the Property

State of Conservation and factors affecting the Property

4.a Present state of conservation

The ancient city of Tak'alik Ab'aj has been preserved for centuries under the fertile soil of the coffee plantations where it is located. Since 1888 a series of outstanding explorers and scholars came by this place studying some of its vestiges, the first field seasons of archaeological project of the University of California, Berkeley, took place from 1976 to 1981. In 1987, soon after the initiation of the donation of the first part of the 15.38 ha of land of the Ralda González Family, the previous National Project Abaj Takalik began under the observation of the Ministry of Culture and Sports of Guatemala with the huge objective to create the National Archaeological Park Tak'alik Ab'aj.

From the beginning of the excavations and investigations the topics of conservation and restoration were approached simultaneously, for the exhibition and enhancement of buildings, sculptures and other components that conform the legacy of the cultural vestiges of the ancient city, as well as the recovery and conservation of the natural environment (flora and fauna), inside the Park and in some specific points regarding the neighboring private properties.

All cultural and natural components (artifacts and monuments, archaeological materials as ceramic, obsidian, and stone tools, as well as constructions and buildings) have been and are being inventoried (see Annex IV) and are subject to permanent monitoring and preventive conservation program, which has produced a good state of conservation of the sculptures (98.21% see Annex III.7) and buildings (98% see Annex III.6).

The characteristic regional constructive pattern and its evolution through time, has been documented during the decades of archaeological excavations at Tak'alik Ab'aj. During Middle Preclassic, huge leveling served as basement for the clay buildings, such as low platforms of a special blend of dark and compact soils, large pyramidal buildings, and large platforms with up to five stepped bodies. During Late Preclassic and Early Classic the earthen core of the rectangular platforms with stepped bodies, alternating with sloped walls ascending from low vertical basal walls and sets of inset corners were coated with a cobble stone revetment. These features subsequently in Late Classic times were covered up with stone cobbled ramps.

Fig. 59 Structure 6, terrace 3 with the characteristic regional constructive pattern



Based on this information and the thorough documentation process (plants, profiles, elevations), each architectonic feature in clay (platforms, staircases), floors, and each stone of the cobblestone causeways, channels, aqueducts, and the building versions with cobblestone revetment, is documented with a number in plant and elevation

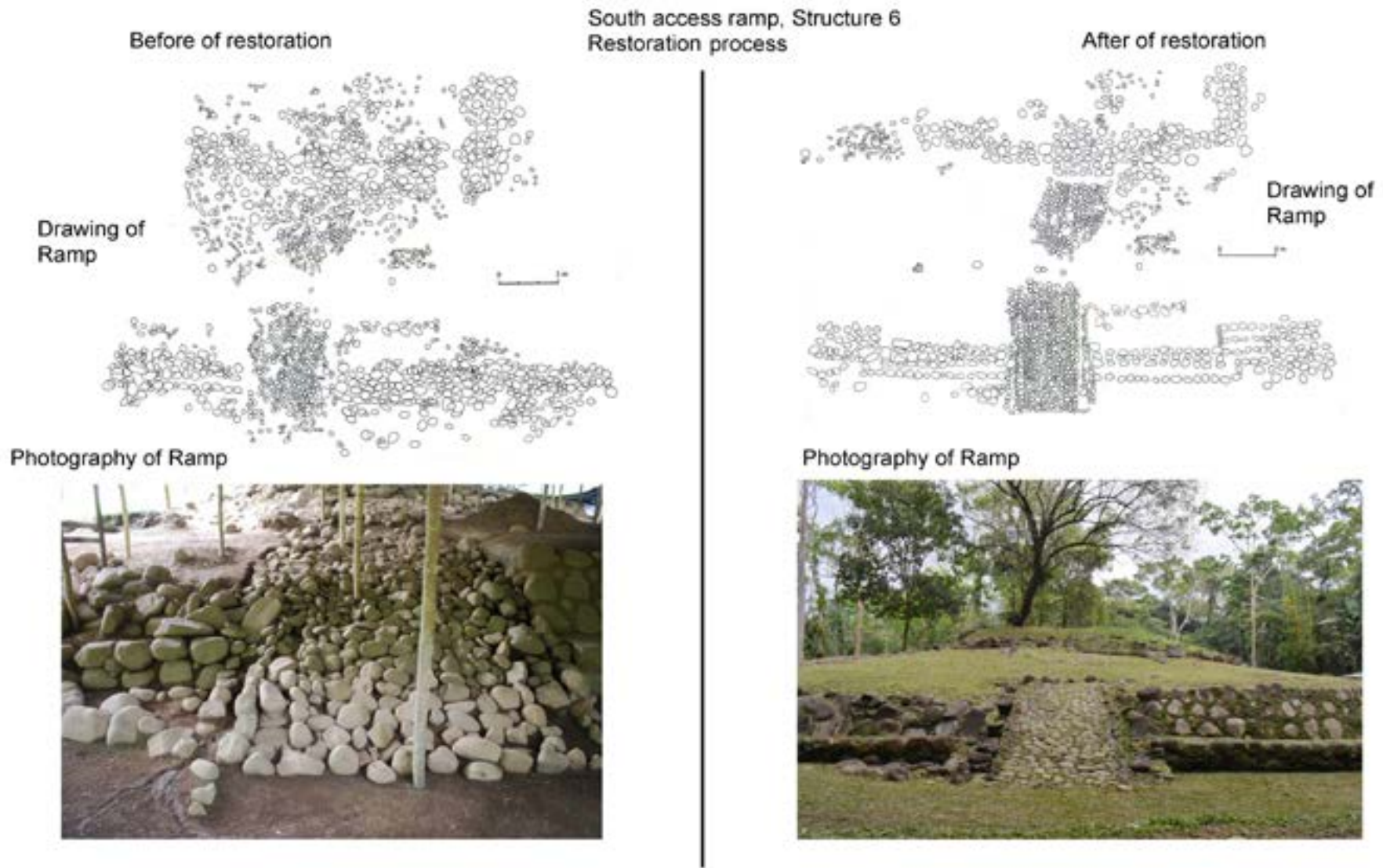


Fig. 60 Restoration process of south access ramp Structure 6

This information, besides testifying the exact condition as it is found in excavation, conforms the baseline for its interpretation and the proposal of how to restore it. The consolidation principles are to reconstitute the stability of the building or architectural feature by replacing the worn out original materials and mortar for the andesite cobblestone revetments (which come from the surrounding rivers), without changing its original design or condition (regilding); reconstruction is only applied if necessary, and every restoration measure has to be reversible (the same principles are applied in laboratory with the archaeological artifacts and materials). The materials employed are as closely as possible to the original (clay soils 25%, taxcal (local volcanic toba) 50%, volcanic sand 20%, and the minimum amount of cement is used to enhance its durability against weathering, which produces a solid material with a texture and consistency very similar to the one used by the antique constructors of the city.

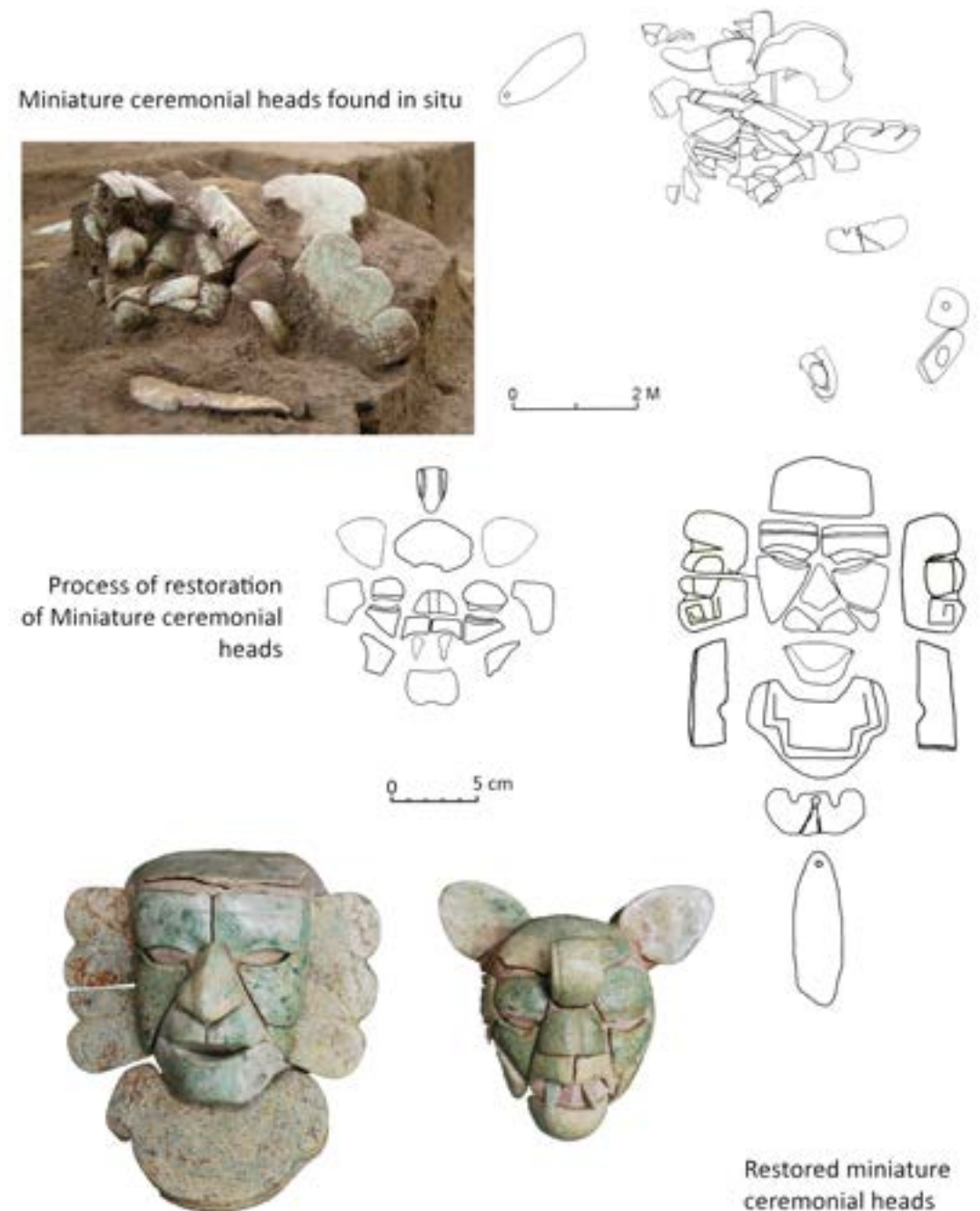


Fig. 61 Restoration process of miniature ceremonial heads of jadeite mosaics

These materials and formula have been tested under external climatic factors proper of the region and monitored constantly to evaluate its strength, color, and adaptation to the original material of the structure, before implementing them. Part of the conservation program is a trimestral monitoring program of the structure to apply the conservation measures in the precise time.

The whole long and midterm planning of the development of the Park has always considered the concepts which rule for the decision taking regarding which part of the architectonic ensembles will be partially or completely exposed and consolidated, which is part of a balance of educational, aesthetical, practical, and conservative considerations.

As a result, some structures have been partially unearthed, their stone revetment restored and their remaining earthen surface covered with grass. Others have been more exposed and restored and others are kept under its original protective accumulated historic layer and vegetation mantle. All structures and sculptures are constantly monitored and periodically attended with preventive interventions and regilding of the eroded parts (see Annex III.6 and III.7).

So far, in the nominated property 11 buildings, 3 channels and 2 causeways have been partially exposed, restored and covered with grass; and completely restored, as Structure 74, 11, 12, 7A, 7B, 6 and “Nin Ja” (73). Of the 207 monuments inside the Park, 73 are covered with a thatched roof in situ or stored, and the rest are exposed.



Fig. 62 Causeway at Terrace 3

Annex III.7 records the state of conservation of the sculptures inside the Park. This trimestral monitoring indicates that the sculptures are in a good state of conservation (98.21%).

Annex III.6 records the state of conservation of the structures inside the Park. This trimestral monitoring indicates that the structures are in a good state of conservation (98%).

Conservation Plans, proposals, and actions:

The threats and conservation measures are characterized according to the two situations of regime of property of the land in which the extension of the ancient city Tak'alik Ab'aj is distributed:

- 1) The National Archaeological Park Tak'alik Ab'aj in the land (15.38 ha) donated to the State of Guatemala, established as the "Nominated Property" (see Annex III.2);
- 2) The private properties and Private Natural Reserves, which cover the whole extension of 6.5 km² (650 ha) of the ancient city or archaeological site Tak'alik Ab'aj (see Annex III.2).

(See also Annex II.14 Management Plan 2021-2025 p. 34)

4.b Factors affecting the property

(i) Development Pressures (e.g., encroachment, adaptation, agriculture, mining)

The archaeological sites located at the south pacific coast of Guatemala, are affected by agricultural and livestock activities, due to the urban development, among others. Another aspect that threatens the protection and conservation of the archaeological and the landscape are presented as follows.

Cultural heritage inside private property

This is by far, the main factor that affects the cultural heritage. The majority of this archaeological sites in Guatemala are located inside of private property. The main issue with the private property, relays on, as happens in many cases, the land is mainly use for agricultural, livestock or construction activities. In the last years, a rapidly urban grown nearby of the archaeological site, besides the intensification of the agricultural activities. As a result, this type of activities has caused the deterioration of the landscape and the soils where the remains of the cultural heritage lie.

Destruction of heritage

One of the strategies for reducing the bad impact of the destruction of the heritage and to promote the conservancy, is necessary the direct and wide communication with the owners of the property. By this mean is necessary to share and expose the great value of the cultural heritage with the aim to stablish agreements where archaeological studies and prospects before to start any activity

Damage of original pieces

In order to prevent the damage of the original sculptures, the archaeological Park keep permanently the drain of the undergrown rainwater, at the same time this sculptures are protected by ceilings with perishable materials

Smuggling of archaeological pieces

The theft and illicit trafficking of archaeological pieces threatens the heritage with the loss of an asset that has historical and cultural value. To prevent this type of activity from continuing, the pieces can be safeguarded in the José Luis Ralda González "El Caracol del Tiempo" Site Museum Tak'alik Ab'aj (construction still in process). In addition, to install a tele intercom system for internal security, and thus alert when a theft.

(ii) Environmental pressures (e.g., pollution, climate change, desertification)

The weather

The climate is one of the factors that is constantly threatening the deterioration of the heritage. To minimize its effects on the heritage, restoration interventions are carried out in the exposed architecture, by the park's trained personnel.

Deteriorating agents

The environmental factor plays a very important role in the conservation of cultural assets. The negative effect that climate change has on heritage is undeniable. Every year, damages are more frequent, and to that extent, action must be taken in coordination with the governing bodies, as well as sensitizing communities and creating more resilient societies.

Contamination

Contamination can occur due to insufficient water disposal treatment plants and pesticide air sprays. As solution measures, a proposal for sanitation measures could be created for each productive activity; and request technical advice from competent authorities in environmental policies.

The incorrect use of natural resources

The illegal extraction of natural products, such as hunting and cutting down trees, cause damage to the biodiversity found both outside and inside the park. To reduce the impact of this factor, the local population could be sensitized about the importance of natural heritage by creating environmental education programs aimed at communities. In addition, to have a greater presence of the Secretariat for the Protection of Nature (SEPRONA).

Water resources

If there is a shortage of water for the Park's operations, the strategy that could be implemented is to improve the existing groundwater service in the Park. By negotiating with municipal authorities for the installation of municipal groundwater supply in new rainwater distribution projects.

Isolation of the Park with areas still covered in forest

The threats that affect the Park is the insufficient connectivity with the scattered forests in the ravines. To combat this threat, the strategy of promoting the creation of a natural corridor on the outskirts of the Park can be implemented. Seeking to promote the biological biodiversity necessary for its survival and conservation through agreements with surrounding private land owners to create said natural corridor.

(iii) Natural disasters and risk preparedness (earthquakes, floods, fires, etc.)

Forest fires

Search for agreements with owners of surrounding private properties will create a constant monitoring program to reduce the threat of fires caused by human activity. Inside the Park, a permanent vigilance program is undertaken combined with behavior rules for visitors (see Annex II.12).

The threat of the natural conditions of rain and storm proper to the warm humid sub-tropical forest are reduced due to the location and design of Tak'alik Ab'aj. Earthquakes appear to be the only unpredictable threat that occur occasionally in the region.

(iv) Responsible visitation at World Heritage sites

The use of public spaces on specific dates

The threat posed by the use of the park on specific dates is the exceeding of the load capacity. One of the strategies that could be incorporated is to facilitate spaces for celebrations respecting the carrying capacity of the Park. Applying the regulation established in the Management Plan 2021-2025. In addition, to prepare and disseminate to tour operators an annual program of the recommended numbers of visitor influx in high season and special dates.

Contingency plans are undertaken for the special dates of high affluence: Easter, Independence Day, Christmas, New Year and Maya New Year celebration of their calendar.

(v) Number of inhabitants within the property and the buffer zone

Estimated population located within:

Area of nominated property (personnel PANTA):...094
(Buffer zone) Preliminary Protection Belt:.....000
Total:.....094
Year:.....2020



Protection and Management of the Property

Protection and Management of the Property

5.a Ownership

The 15.38 ha of the nominated property National Archaeological Park Tak'alik Ab'aj is legally owned by State Party of Guatemala (see Annex II.2, II.11 and II.13).

The archaeological site Tak'alik Ab'aj was first known over more than 100 year ago, since then it has caught attention over all that time due to the hidden monuments, which tips still emerge from the ground. Since 1888 when it was first discovered by botanist Gustav Brühl, a series of researchers visited and studied the site. Formal documented archaeological investigations were first conducted by Doctors Graham and Heizer of University of California, Berkeley, from 1976 to 1981. Their objectives were centered on discovering sculpted monuments and the first map of the entire site was done. The archaeological site Tak'alik Ab'aj in its whole extension (650 ha) as urban center is distributed among the private properties: Santa Margarita, San Isidro Piedra Parada, Buenos Aires, San Elías and Montes Elíseos.

The National Project Abaj Takalik started in 1987 by a Guatemalan multidisciplinary team directed by Archaeologists Miguel Orrego

Corzo and Christa Schieber de Lavarreda of the Ministry of Culture and Sports/DGPCN-IDAHE, to develop the archaeological research and restoration of the National Archaeological Park Tak'alik Ab'aj. The objective was to investigate the initial grand question why at this site –an up-to-date unprecedented case- the Olmec and Mayan cultural patterns were found side by side, to conserve and promote the heritage of the city. After talking with Don José Luis Ralda González, owner of the private property Santa Margarita where the Central Group settles, he decided to donate 15.38 ha to establish what today is the National Archaeological Park Tak'alik Ab'aj, giving Guatemalan people the opportunity to invest in the discovery of their history.

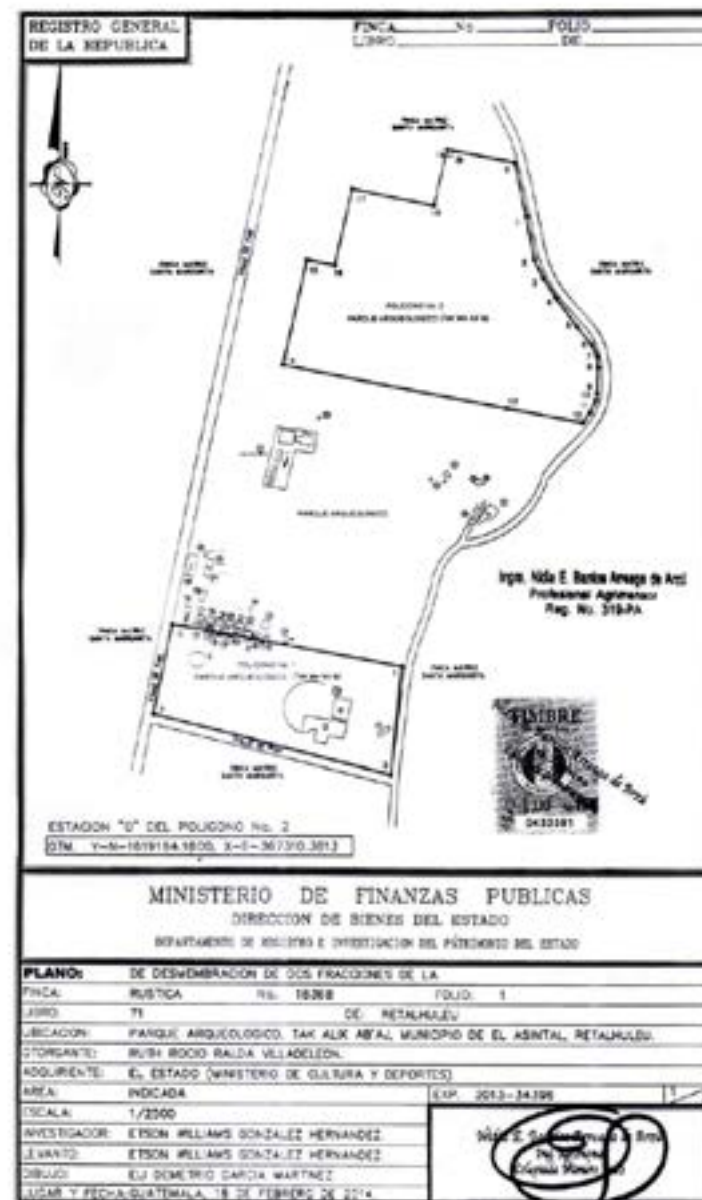
The donation was done in two phases. The first one of 7.69 hectares initiated in 1987 and was completed in 1998 after the construction of the paved road from Municipality of El Asintal to the Park (CA2 Occ) was finished, condition for the fulfillment of this first donation (Public Document 13FCA Register 60,489 Page 89 Book 167 of Retalhuleu). The inauguration took place in presence of Former President of Guatemala Mr. Alvaro Arzú Irigoyen, Don José Luis Ralda González, and Archaeologists Miguel Orrego Corzo and Christa Schieber de Lavarreda, who signed the document registered in Minute 180-99 of

certificated Minute-Book 8258 of the National Archaeological Park Tak'alik Ab'aj.

In 2007 the second donation phase began and was finished in 2013. The condition for the Guatemalan State Party this time was to finish the construction of the Site Museum Tak'alik Ab'aj "El Caracol del Tiempo", which began that same year. For some external factors, the construction is still unfinished. Nevertheless, the Ralda Villadeleón family concluded the second donation for the State of Guatemala (Public document 61 Register 18,368 Page 1 Book 71 of Retalhuleu; Government Decree No. 486-2013).

The total extension of 15.38 ha of both donations of the nominated property, attested in the public documents mentioned above have allowed gradual and effective development of the declared objectives of the investment project since its beginnings. As time went on and facing the need to guarantee the maintenance of this project, in 2011 the Technical Office of National Budget (Ministry of Public Finances) decided to transform the Park from investment program to operative program.

Fig. 63 Legal map of donations



5.b Protective designation

Legal framework

1985 – Political Constitution of the republic of Guatemala

The Political Constitution of the Republic of Guatemala, in its article 64, declares the conservation, protection and improvement of the natural heritage of the Nation of national interest, through the specific law that will guarantee the creation and protection of national parks, reserves, natural refuges, the fauna and flora that exist in them.

1989 - Declaration of Tak'alik Ab'aj as Area of Special Protection by the National Council of Protected Areas (CONAP). (Law Decree 4-89 Art. 90 No. 35)

1997 - Law for the Protection of the National Cultural Heritage (Law Decree 26-97)

The purpose of the law is to regulate the protection, defense, investigation, conservation and recovery of the assets that make up the cultural heritage of the nation. Within said Law, it is established that the assets and institutions that by ministry of law or by declaration of authority integrate it and constitute movable or immovable property, public and private, related to paleontology, archeology, history, anthropology make up the cultural heritage of the Nation. , art, science and technology, and culture in general, including intangible heritage, which contribute to the strengthening of national identity.

1998

Completion of the process of the first donation of 7.69 ha from Don José Luis Ralda González (Public Document 13FCA Register 60,489 Page 89 Book 167 of Retalhuleu) (see Annex II.2).

2002 - Declaration of Tak'alik Ab'aj in its whole extension of 6.5 km2 (650 ha) as National Cultural Heritage in the category of National Archaeological Park Tak'alik Ab'aj (Ministerial Decree 528-2002)

This legal document aims to establish that according to its historical background that shows that Tak'alik Ab'aj was an ancient city that constituted one of the most important centers of intellectual, artistic and commercial development in the South Coast region. of Guatemala, and that currently continues to be a sacred place for the different ethnic groups of the Mayan people, which make up the Guatemalan nation, whose archaeological remains correspond to the Preclassic and Classic Mayan periods.

2011 - Reforms to the Process Penal Code, which characterize the pillaging of the national heritage, robbery of archaeological pieces and crimes against environment (Law Decree 7-2011)

The Criminal Procedure Code, Decree Number 51-92, establishes the procedures to be followed for the investigation, trial and sentence of the crimes established in the criminal regulations. Crimes against Cultural Heritage are established in Guatemalan regulations, which is why they are susceptible to criminal proceedings when one of them is committed. Consequently, access to justice requires the exercise of criminal action and timely attention to complaints from crime victims, which resolve criminal disputes to prevent criminal acts and punish those responsible, within the framework of the principles that they guarantee due process.

2011 - Entrance of Spiritual Guides or Ajq'ijab' (Ministerial Decree 981-2011)

The spiritual guides or Ajq'ijab', individually or accompanied by a group of people who practice ancestral spirituality, have the right to enter, after identification that accredits them as such, to the Sacred

Places or Sites, Monuments, Parks, Complexes or Archaeological Centers, which are located throughout the national territory and which are under the legal jurisdiction of the Ministry of Culture and Sports, for the performance of their ceremonies at the altars located for this purpose; Except for the rules of respect, safety, hygiene, cleanliness and others, which must be observed for the protection and conservation of said places, which will be contained in the regulations that are drawn up for this purpose. The Tak'alik ab'aj Archaeological Park, considered as an Archaeological Center, for the purposes of this Agreement, which constitutes space and source of cosmic and natural energy, of life and wisdom, for the spiritual communication of the human being with the Supreme Being or Ajaw and its coexistence with nature, for the strengthening and articulation of the present with the past and future.

2012 - Regulation of behavior for visitors to archaeological sites and national parks under the administration of the Ministry of Culture and Sports (Ministerial Decree No. 1171-2012)

The Archaeological Sites and National Parks of the Republic of Guatemala constitute Cultural Heritage of the Nation, as is the case of the Tak'alik ab'aj National Archaeological Park, they are under the administration and conservation of the Ministry of Culture and Sports, through of the General Directorate of Cultural and Natural Heritage. This body sees the need to implement a regulation that establishes and limits the conduct of visitors in the parks. Therefore, all visitors will be responsible for their conduct, and if it violates the Cultural Heritage of the Nation, the sanctions determined by the Law for the Protection of the Cultural Heritage of the Nation, Decree 26-97 of the Congress of the Republic of Guatemala, and other applicable laws.

2013 - Completion of the process of the second donation (7.69 ha) of the private property of Licda. Ruth Rocío Ralda Villadeleón with which the area of the PANTA extends to 15.38 ha (Public document 61 Register 18,368 Page 1 Book 71 of Retalhuleu; Government Decree No. 486-2013) (see Annex II.13).

5.c Means of implementing protective measures

The National Archaeological Park Tak'alik Ab'aj, located to the north of the Municipality of El Asintal, Retalhuleu, Guatemala, has a Management Plan 2021-2025 and Annual Operative Plan (POA) that contain the statutes and investigation and conservation programs (setting in value), and maintenance of the intervened and not intervened archaeological vestiges, in the "Nominated Property" as well as in some specific places in the land of the Properties and Private Natural Reserves.

The archaeological site Tak'alik Ab'aj, in its extension of 6.5 km² (650 hectares), is distributed among the private properties Santa Margarita, San Isidro Piedra Parada, Buenos Aires, San Elías and Montes Elíseos. Two of these properties, Santa Margarita and Buenos Aires are declared as Private Natural Reserves; Montes Elíseos and Buenos Aires are affiliated to Rainforest Alliance and their products distinguished with the seal of Green Deal. The Private Natural Reserves have their own conservation plan of the natural and cultural patrimony, which contribute to the conservation of the Buffer Zone and natural corridors surrounding the National Archaeological Park Tak'alik Ab'aj. The remaining properties are engaging in the process to be declared Private Natural Reserve.

Tak'alik Ab'aj is the only archaeological center in the region being developed as a national cultural park. It promotes the regional cultural, social, and economic sustainable development; as well it is integrated into the tourist development projects impelled by INGUAT, as GUATEMÁGICA, and Plan Puebla-Panamá.

5.d Existing plans related to municipality and region in which the proposed property is located (e.g., regional or local plan, conservation plan, tourism development plan)

The Municipality of El Asintal in the department of Retalhuleu, Guatemala, is fortunate to have a unique cultural center in Mesoamerica, the National Archaeological Park Tak'alik Ab'aj. As such it is of a particular interest for the Municipality as well as for the department.

The Municipality of El Asintal seeks the development of tourism for the year 2032, this is intertwined with the strategies of the Management Plan 2021-2025 of promoting the development of the local population's abilities, and the park grants access to the graphic designers to the information on the pertaining cultural topics. The municipal authorities are committing gradually to improve the basic services for the village population to provide quality services to the visitors.

5.e Property management plan or other management system

Administration/Management:

Since its beginnings in 1987 and up to this date, The National Archaeological Park Tak'alik Ab'aj, is funded and managed by the Ministry of Culture and Sports by means of the Vice-Ministry and Head Office of Cultural and Natural Heritage/Institute of Anthropology and History

The management structure of the Park is built by two important sections: Technical Scientific Coordination, and Technical Administrative Coordination. Both sections have the following personnel: technicians (5), professional (2), operative (90); total 97 persons, the operative employees are local.

Technical Scientific Coordination:

This section addresses research, conservation and restoration, under the guidance of a graduated archaeologist with ample field experience, and the support of a group of technicians and an experienced staff.

The Technical Scientific Coordination is composed by 7 units: 1. Archaeological research (18.33% of budget/17 persons), 2. Topographic Survey (1.63% of budget/2 persons). 3. Archaeological Laboratory (9.57% of budget/4 persons). 4. Archive/Documentation center (6.07% of budget/5 persons) 5. Archaeological Restoration (4.93% of budget/6 persons). 6. Ecology (7.96% of budget/9 persons). Upon finishing the construction and startup of the operation of the Archaeological Museum Tak'alik Ab'aj "El Caracol del Tiempo" José Luis Ralda González, this unit will be added. (Annex III.4)

Technical Administrative Coordination:

This unit is responsible for the financing, labor (human resources), security and maintenance of the Park, under the guidance of a graduate manager with ample experience in public administration, and with the support of an experienced staff in accounting and human resources.

The Technical Administrative Coordination consists of 4 units: 1. Maintenance of the operative and visitor's infrastructure (6.90% of budget/6 persons). 2. Maintenance of the archaeological and natural areas open to the public, architectonic structures and sculptures

intervened and non-intervened (13.72% of budget/15 persons). 3. Guards/security, visitor's, and spiritual guide's attention (15.47% of budget/18 persons). 4. Management, accounting, labor, maintenance of water supply, electricity, transport, computer equipment and others (15.40% of budget/7 persons). (Annex III.5)

To this day, the major concern for the direction of the Park is the constant threats described below:

PROBLEM	THREAT	PREVENTIVE MEASURE
Politicized bureaucracy	<p>The personnel of the Park, who have developed a high degree of attachment, expertise (see section 5.g) and sense of responsibility in taking care of all aspects of the cultural and natural heritage, could be substituted by personnel with no experience and/or with no academic background.</p> <p>Interference of the execution of the budget</p>	To fulfill the manuals of functions (see Annex III.4; III.5) with the adequate profiles for each job position.
		The creation of a non-governmental organization, as a cultural association or foundation, to encourage in order to strengthen the involvement, voice, and vigilance of the population in support of the National Archaeological Park
		To request to the National Congress for the independence of the financing and execution of the budget

Management Systems Summary

1987-2010 National Project Abaj Takalik

Program of government investment – yearly budget Ministry of Culture and Sports and General Secretariat of Planning (SEGEPLAN) Code 3705.

2010 - henceforth National Archaeological Park Tak'alik Ab'aj

Program of government operation – yearly budget Ministry of Culture and Sports.

Since 2011 the PANTA develops and implements 5-year long management plans, guaranteeing long term investigation, conservation, protection, divulgation, operation, and integral management. The plans are framed in policies and broader plans such as the National Development Plan: K'atun, Nuestra Guatemala 2032 and Master Plan for Sustainable Tourism in Guatemala 2015-2025.

National Development Plan: K'atun, Nuestra Guatemala 2032 Overview

The National Development Plan: K'atun Our Guatemala 2032 is the National Development Policy, an instrument that guides and organizes the public sector on every level with a gradual perspective that defines priorities, goals, results, and guidelines. The development process was based on the principle of equity and introduced the idea of cultural affiliation as a main point that allows the proposed actions to be effective, successful, and sustainable on a short and long term.

The Plan is organized into three parts, the first part includes dreams shared by the people of Guatemala for a possible future. The second part is about the historical context of planning, inclusive

rural development, public policies of Guatemala in the international agenda of development, and priorities and challenges for the next twenty years. The third part is the heart of the Plan corresponding with the five axes, with a priority on national development. In the Well-being for the people axis, the promotion of culture as a means for rebuilding and revitalizing the social web and the construction of a national identity through diversity is approached. Culture, as defined by UNESCO (1982) becomes a promoter for integral development and a source of income and innovation.

Guatemala has a historical cultural heritage found in sacred and archeological areas, colonial and republican buildings, and other monuments. From an indigenous worldview (maya, garífuna, and xinca), sacred areas are places where a communication between worlds takes place, and for a better intercultural cohabitation, the country has instruments to protect these areas of tangible and intangible national cultural heritage that allow their restoration, valuation, respect, promotion, and use in the development of national identity.

Master Plan for Sustainable Tourism in Guatemala 2015-2025 Overview

The Master Plan for Sustainable Tourism in Guatemala 2015-2025 is the most important progress in the implementation of the National Policy for Sustainable Touristic Development in Guatemala 2012-2022, it is a shared vision between the public and private sectors that guides the sustainable development of tourism for the next ten years. It establishes and prioritizes the path for the tourism industry as it is an articulator of efforts through which actions and resources are directed towards a consensual model of competitive and sustainable touristic development under the Global Criteria of Sustainable Tourism.

For the development of the plan, an inclusive and collaborative diagnosis was made. It proposed the vision of placing Guatemala in the year 2025 as the Heart of the Mayan World, one of the three main cultural destinations of America and tourism as the most important economic activity of the services industry in the country. For this to happen, goals, strategies and actions are presented in programs, subprograms, and projects as the tourism activity in Guatemala is extremely dynamic and can generate multiple economic, social, and environmental benefits in the host communities.

The national territory is divided into seven touristic regions. According to their specific characteristics, and to plan and develop destinations with specific strategies, the touristic attractions are classified in five hierarchies. The Plan contemplates specific actions to protect, conserve, investigate, and give value to natural resources and the National Cultural Heritage. The National Archaeological Park Tak'alik Ab'aj is the only archaeological-natural touristic attraction in Region 6 (Pacific, Magic, and Diverse) being part of hierarchy 4, which includes attractions with singular and representative characteristics for Central America and national tourists, either by itself or with other resources.

Municipal Development and Territorial Management Plan 2019-2032 Overview

The Municipal Development and Territorial Management Plan 2019-2032 from the municipality of El Asintal was defined through a collaborative process with a territorial and risk approach based on the National Development Plan: K'atun, Nuestra Guatemala 2032 and the Sustainable Development Objective (In Spanish: Objetivo de Desarrollo Sostenible, ODS). An important result from this process is the development axis (that composes the general plan strategies, honest and open dialogue between participants on local

characteristics and their problems and solutions) which helped to reach the necessary agreements to move forward.

The vision towards 2032 is that the municipality of El Asintal develops into an all-encompassing and sustainable area, improving environmental conservation and protection, risk management, territorial management, security, productivity, tourism, sources of income, and gender equality; prioritizing coverage and quality in education on every level, health, clean water, and sanitation.

The plan stipulates that archaeological sites in the municipality are in the 'protection and special use of the land' category, which allows investigation, conservation, and restoration of historical assets. It contemplates the conditional use of parks and ecological trails, low environmental impact tourism, recreational, cultural, and sport activities according to the local cultural characteristics, small-scale commerce, and handicrafts. In this category of protected use, housing, industry, educational and health facilities as well as liquid and solid waste treatment facilities are prohibited.

Tourism Quality and Sustainability Programme Sello Q Verde Overview

The National Archaeological Park Tak'alik Ab'aj was the first to receive the Sello Q Verde (Green Q Seal) award on behalf of the Instituto Guatemalteco de Turismo (In English: Guatemalan Institute of Tourism, INGUAT) in 2017, in the "Jade" category, which is the highest. It was a pilot plan and it served as an example for other parks and natural areas. This recognition is awarded to archaeological-natural sites that implement and launch good sustainable environmental practices that guarantee an enjoyable visit and quality service to tourists, a safe work environment to employees, clear management processes with

emphasis on efficiency and constant improvement. With the objective of maintaining and improving the compliance of management and quality, the park gets re-certified every two years.

The Sello Q Verde Program is based on four main axes: Sustainability, Parks and Natural Reserves, Management, and Health and Occupational Safety. The environmental and sustainability management is an instrument with technical operations and actions that evaluate the level of environmental impact that the park has, considering all the environmental control or mitigation suggestions to be implemented minimizing environmental impact. The legal aspects are considered, such as the following of current environmental regulations and requirements from authorities that monitor them.

The quality control system that the park follows is designed to establish reference data on the development of service processes that meet high quality standards, conservation, and sustainability on planification, development and improvement of visitor services, and conservation of the cultural and natural heritage.

The park establishes, documents, implements, maintains, and improves the quality and sustainability management system constantly through communication processes, evaluation, and validation of methods that allow quality to become a reality in each of the activities it develops. The documents used as reference, register, control, and follow-ups are: work processes and manuals as well as quality control managed by the Quality Committee of the park.

The security management looks after important health and occupational safety measures relevant to the inherent risk analysis of employment and touristic practices, as the employees are the ones that act as guides and safety facilitators in the park. The goal is to guarantee a safe and enjoyable work and touristic environment without any potential risks.

Management Plan 2021-2025 Overview

The Management Plan for 2021-2025 of the National Archaeological Park Tak'alik Ab'aj is an instrument used as reference to manage activities considered to be conducted during the next five years. It shows the development the park has had since its early stages, achievements, and its opening to the public as an area for investigation, preservation, protection, restoration, development of ancestral cultural practices, and recreation, as well as a sacred area where actual Mayans preserve their worldview through ceremonies and rituals following the days of their sacred calendars.

Its value and importance are reflected in the cultural, natural, scientific, and socioeconomical contribution to nearby communities due to its capacity to generate direct and indirect jobs through touristic attractions close by, as related services are needed.

The structuring and management are based on decrees, laws, and conventions created and developed through time, which help shape a more efficient management and train employees that will be enforcing these regulations.

Having an efficient management means having a plan to follow during a determined space in time, considering the established programs, projects, and actions. These have been developed according to the current and possible future needs. In its content the management philosophy, strategic objectives, and the actions to be taken are shaped to maintain and improve the management efficiency and achieve the established goals. Said goals and actions were developed, considered, and shaped by representatives of different management, operative, and technical units of the park, with the guidance of an external consultant to foresee current and future needs.

In the creation of the content, operational guidelines that suggest the possession of a Management Plan according to UNESCO have been considered, to continue with the process of nomination for World Heritage. A meeting to validate the plan with key participants of the El Asintal municipality was held.

The analysis of the current state of the park began with the FODA matrix (In Spanish. Stands for strengths, opportunities, weaknesses, and threats), and based on the results, strategies and actions based on investigation, conservation, knowledge, enjoyment, and security for the visitor were recorded, so that the area is managed as a cultural, sacred, safe, and natural place that inspires a legacy with a solid national identity for future generations.

The plan includes a regional context description of the municipality of El Asintal and the characteristics of the National Archaeological Park Tak'alik Ab'aj, as well as data for instance geographical location, extension, language, region, population, access, historical description, management category; cultural, natural, and socioeconomical importance, public activities, cultural-archaeological and biologic-

ecological touristic attractions, life zones, and natural wealth, among others. The zoning of the park, load capacity, social inclusion, some developing projects, as well as the financial system are also important aspects of the content of the plan.

One of the original and current projects of the park is the “5A” Program of Tak'alik Ab'aj (Art-ESICAL) © for education and development, creating a management platform that aims towards self-sustainability (In Spanish: auto-sostenibilidad) with the purpose of introducing archaeology to the community and its development, launching a pilot model that can and should be a different way of understanding what archaeology is for and so that the knowledge obtained through its investigations can create an area with iconic themes in each archaeological center/park and neighboring community. At the same time, supplies would be provided to produce Educational Art (In Spanish: Art-Educa), Handicrafts (In Spanish: Arte-Sanías), Artistic Events (In Spanish: Eventos Art-ísticos), Culinary Art (In Spanish: Arte Culinario) with their own ancestral natural products and Astro-Fireflies.



Fig. 64 Artisans
at National
Archaeological Park
Tak'alik Ab'aj

The Management Plan 2021-2025 of the National Archaeological Park Tak'alik Ab'aj is focused on defining goals; management, scientific, technical, and operational strategies and actions, that as a whole promote archaeological and scientific investigation, knowledge, restoration, protection, conservation, promotion, and sustainable public use of the cultural and natural heritage of the park, recorded in the Exceptional Universal Values proposed to be declared World Heritage by UNESCO as an important area of sculptural and lapidary art, urban design and engineering and its natural surroundings, an architectural and sculptural stage, early scientific astronomical development, writing and time register, and resilience of the worldview of different current Mayan people that celebrate their ancestral ceremonies following the sacred calendar in one of the most important cities for the early Olmec and Mayan civilizations of the Pacific Coast of Mesoamerica, strengthening a cultural identity, values, education, and passing knowledge to future generations.

5.f Sources and levels of finance

The National Archaeological Park Tak'alik Ab'aj is a dependence of the Ministry of Culture and Sports, under the administration of the Head Office of Cultural and Natural Heritage/Institute of Anthropology and History (IDAEH).

This Park came into being due to the generous donation of 15.38 ha of land by Don José Luis Ralda González to the Guatemalan State Party. The donated terrain hosts the central part of the Archaeological Site Tak'alik Ab'aj. On December 11th, 1987 the project with the name National Project Abaj Takalik was created with its principal objectives of archaeological research, conservation and protection of the archaeological remains and the creation of an archaeological park bearing unique cultural and natural characteristics (in the region). Due to its exceptional archaeological, historic, cultural, and artistic values, on November 14th, 2002 the Ministry of Culture and Sports

declared by means of Ministerial Decree No. 528-2002 Tak'alik Ab'aj as National Cultural Heritage.

Financing

The National Archaeological Park Tak'alik Ab'aj at its first stage as investment project from 1987 to 2010, began with a budgeted investment of Q426,000.00 (aprox. \$54,658.69, according to Bank of Guatemala January 2nd, 2021), reaching in 2010 Q4,625,182.77 (aprox. \$593,442.33).

In 2011, the Guatemalan State, due to the historic importance and the investment made at the site during those years considered necessary to change from the investment to the operative program and to elevate Tak'alik Ab'aj to the category of "National Archaeological Park Tak'alik Ab'aj", the name that is currently used for the Park.

The investment made by the State in the Park from 2011 to 2020 is Q62,720,264.43 (aprox. \$8,047,435.58). Since its beginnings in 1987 to 2020, the total amount ascends to Q114,875,132.97 (aprox. \$14,739,259.17).

It is important to note that at this stage the National Archaeological Park Tak'alik Ab'aj is an operative program of the Guatemalan Government, and as such, it is granted an annual budget no less than the last assigned budget (Q6,698,825.00 or aprox. \$859,504.71), guaranteeing the protection, conservation, maintenance, and administration of the cultural and natural assets of the Park, inclusive –upon conclusion of its construction- the operation of the Site Museum Tak'alik Ab'aj "El Caracol del Tiempo" José Luis Ralda González at the property. The investment executed up until today for this museum ascends to an approximate amount of Q4,000,000.00 (aprox. \$513,227.14) and the investment to be executed from now on ascends to an approximate amount of Q15,000,000.00 (aprox. \$1,924,601.79).

**NATIONAL ARCHAEOLOGICAL PARK TAK'ALIK AB'AJ
ASSIGNED BUDGET TO EACH UNIT - 2020**

No.	Proportion of cost of activity, Annual Operative Plan(POA) 2020	In Quetzales	In Dólares
1	Archaeology	Q1,244,483.00	\$155,560.37
2	Mapping	Q110,933.00	\$13,866.62
3	Laboratory of Archaeological Materials	Q649,906.00	\$81,238.25
4	Restoration	Q334,836.00	\$41,854.50
5	Infrastructure	Q468,520.00	\$58,565.00
6	Ecology	Q540,608.00	\$67,576.00
7	Maintenance	Q931,735.00	\$116,466.87
8	Guard, Visitors Guidance and Entrance Fee Collection	Q1,050,407.00	\$131,300.87
9	Administration	Q1,457,397.00	\$182,174.62
		Q6,788,825.00	\$848,603.12

5.g Sources of expertise and training in conservation and management techniques

The National Archaeological Park Tak'alik Ab'aj since its creation, has focused on integrating and promoting constant training programs for personnel. Currently, the work team is made up of Guatemalan archaeologists, technicians and operatives who, through the direction of those in charge of the park, have been able to develop research, excavation, conservation, restoration, analysis of archaeological artifacts and documentation of the same. . Constant training has allowed staff to be distributed through different work groups or units from which specific tasks are assigned; each unit has its own responsible leader in charge of the corresponding specific activities and reports

Archaeological investigation

17 persons. 30 years of practical experience in excavation and documentation inside or outside of the Park. The archaeologists

constantly qualify the excavation and restoration personnel, which also has decades of practical experience, also developing a special sense or relationship with this place, making them the best guardians for the archaeological treasures.

Topography

2 persons. 25 years of experience in the field doing the detailed topographic maps.

Restoration

6 persons. 25 years of practical experience in conservation, consolidation and restoration/setting in value of archaeological architecture and constructions, specialists in making replicas of sculptures. As well in charge of the prophylactic maintenance program.

Laboratory Archaeological Material and Conservation

4 persons. 30 years of practical experience in charge of inventory, storage, and preparing the material for analysis and restoration.

Documentation Center

5 persons. 12 years of practical experience in charge of archive of photographic, graphic, and written or digitalized documentation, as well as graphic editing.

Infrastructure

6 persons. 25 years of practical experience in the construction of operative and touristic facilities, as well in charge of its maintenance.

Ecology

9 persons. 20 years of practical experience in forest regeneration, nurseries, maintenance of forest and green areas of the Park. As well in charge of construction, cleaning, and maintenance of facilities of the Wildlife Refuge as well as the feeding and supervision of the health of these. This work group works under the guidelines established since 1991 by a biologist.

Maintenance

15 persons. 30 years in charge of the constant maintenance program and cleaning of the Park and its facilities, as well handling and recycling of waste generated in the Park.

Guardians, Guides and Entrance Fee Collection

18 persons. 30 years of practical experience in the attention to the public with personalized guides to serve the national and foreigner visitor and rituals performed by the various indigenous ethnic groups. In charge of the register of all visitors and entrance fee collection, as well the 24 hours security coverage of the Park.

Human Resources

7 persons. 20 years of practical experience in administration of human resources at the Park.

5.h Visitor facilities and infrastructure

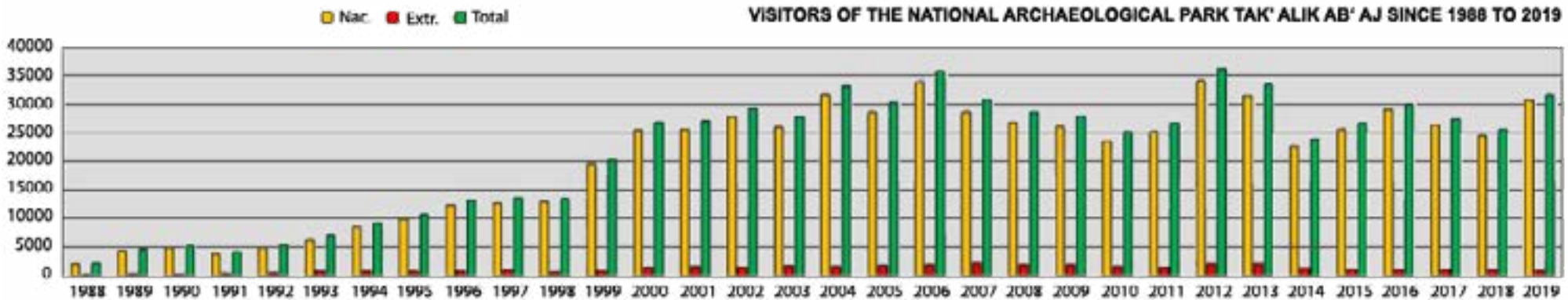
The National Archaeological Park has one place for check in control and visitor's registration. Inside the Park the visitors can find 24 interpretive maps strategically located along the touristic paths and 2 scale models of the entire archaeological site. Additionally, the visitors can learn in the area for the Temporary Archaeological Exhibition. The tour guides specialized for personal attention to the visitor that offers are 11, also, the visitors can take printed information and booklets. Touristic paths are identified with signs.

The infrastructure of the Park counts with 5 Rest houses with barbecue facilities; 4 Restrooms and 1 Restroom for person in wheelchair or disabled; 1 area for parking; 1 place for handicrafts sales; and one Cafeteria area. Other facilities in the Park are one Wildlife Refuge and 6 Alternative altars for maya ceremonies.

If there is an emergency caused by an earthquakes or other natural disasters, the Park counts with 10 meeting points for emergencies; 6 Fire extinguisher and 2 first aid kits.

We present the most relevant data of the people which visit this place and as such disclose in a natural way the experience lived in this archaeological and natural Park. This experience will be more complete when the Site Museum Tak'alik Ab'aj "El Caracol del Tiempo" José Luis Ralda Gonzalez starts operating.

Fig. 66 Visitors at the National Archaeological Park Tak'alik Ab'aj



Since the visitors register began in 1988 (2,152 visitors) until 2006 (35,939 visitors) an ascendant tendency of touristic influx registered with some minor fluctuations. A descending tendency was noted after 2007, reaching 26,789 visitors in 2011. This decrease reflects the recession experienced worldwide and, at some part, lack of security in the country. Added to this, there was scarcity of promotion from the Guatemalan Institute of Tourism (INGUAT) in charge of diffusion of national cultural richness.

An abrupt increase of visitors' inflow to the Park occurred in 2012, reaching 36,420 visitors; 34,399 national (95%) and 2,021 foreign (5%). This bigger flow can be attributed to the celebration of the last B'aqtun from the sacred cycle of 13 B'aqtun in Maya Long Count.

A slight increase followed in 2013 (31,143) compared to 2011 (26,789) indicating the spontaneous high increase in 2012 with 36,420 visitors due to 13 B'aqtun celebration, which was not the case in 2013, the first year of a new 13 B'aqtun cycle.

From 2015 to this day, the average amount of visitors has been maintained, except for the year 2020 due to the COVID-19 pandemic. Because of this, the records from the previous year (2019) are presented.

National and foreign representativeness, gender, and school population National vs. Foreign visitors' proportion has been even in 97% (66,583) and 3% (2,258) respectively, both categories following the touristic flow

curve described above. Genders' proportion for foreigners is 53% (1,186) of feminine visitors and 47% (1,072) of masculine visitors; for nationals 51.5%, (34,328) are feminine visitors and 48.5% (32,255) are masculine visitors. School population's proportion increase to 67% (8,236) and underage kept in 15% (1,863), which points out the importance of the Park in Guatemalan youth's education.

Ethnic representativeness and nationalities

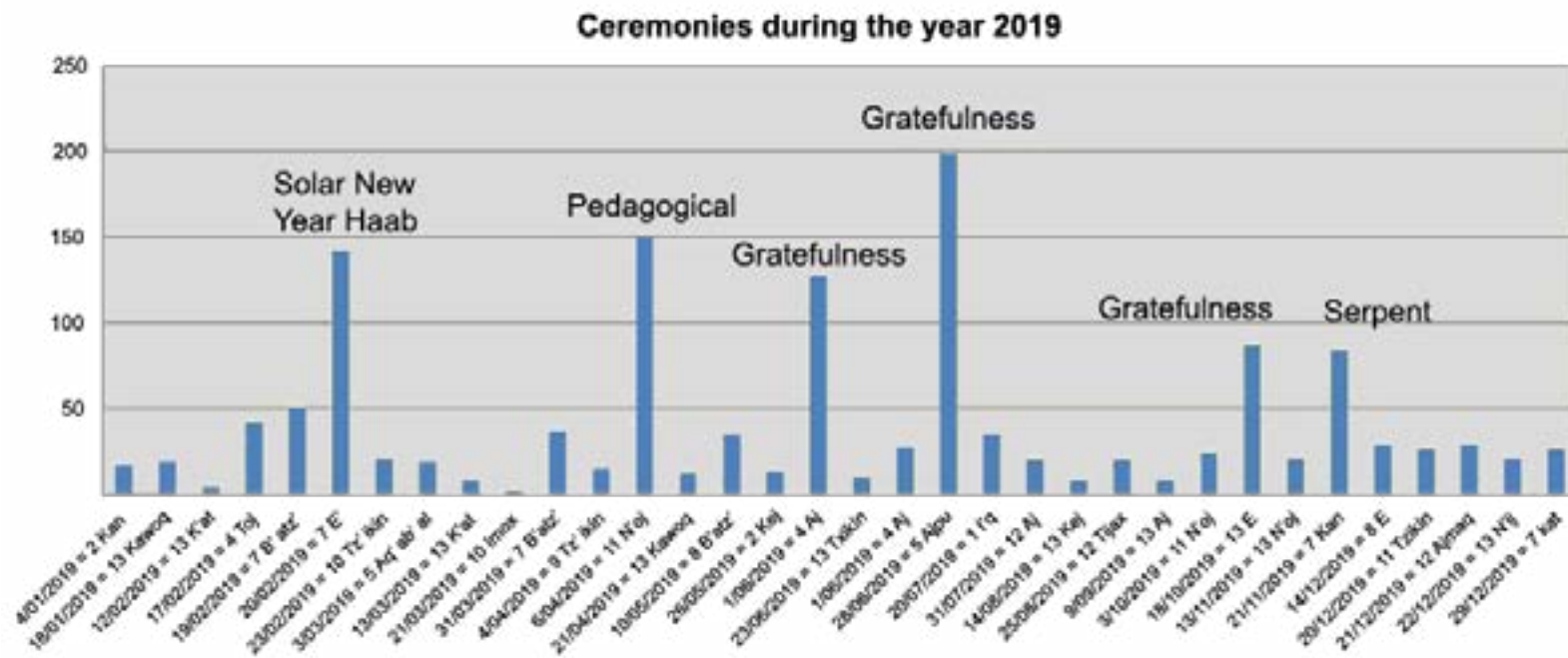
Regarding the major ethnic groups of national visitors in 2019, there was non-indigenous with 67.5% (20,893), followed by k'iche' with 21.7% (6,709), mam with 8% (2,556), and kaqchiquel 1.5% (495). As for foreigners the predominant nationalities are: United States of America 55% (481), Spain 5.6% (49), Canada 4.8% (38), Mexico 3% (26) and Germany, El Salvador and Italy share a 2% (18).

Sacred place for ancestral traditions

241 ceremonies were performed in 2019 at the Park, from which 85% (206) were indigenous ceremonies and 15% (35) non-indigenous. It is interesting to note the increased flow was maintained for ceremonies registered in 2012: 236 total, 193 (82%) indigenous and 43 (18%) non-indigenous, despite general flow decreasing slightly.

It is also important to note visitors and ceremonies flow behavior related to the high increase registered in 2012 due to 13 B'aqtun celebrations, indicating the "euphoria" produced by the media and seen in visits and the performance of ceremonies, whilst next year (2013), it was evident this "euphoria" in general population was a fleeting phenomenon which manifests no major consciousness or cultural attraction from visitors, but, on the other hand, a major intensity in spiritual life of indigenous population was evident, demonstrating the real dimension of indigenous cultural-spiritual situation and that of visitors' interest at Tak'alik Ab'aj and what it represents for them.

Fig. 67 Ceremonies celebrated in 2019 at National Archaeological Park Tak'alik Ab'aj



5.i Policies and programmes related to the presentation and promotion of the property

The National Archaeological Park Tak'alik Ab'aj, has focused on implementing policies and programs that allow the dissemination of research and conservation work carried out within the park, at a local and regional level. Among the first policies that have been established, at a local level, is a constant training program for guards and guides, since they are in charge of accompanying all visitors to transmit the data obtained from archaeological excavations, and with it to promote good practices to transmit knowledge to the population visiting the archaeological park.

Regarding to the regional level, archaeological work is presented through different dissemination platforms, being the Archaeological Research Symposium in Guatemala the most important since it allows said information to be transmitted through the national media, audiovisual (Guatevisión) and written (Prensa Libre), and in turn in local magazines (Revista Galería 2016) and international (National Geographic, Arqueología Mexicana, Mexicon, Archeology and Antike Welt). So far, 5 magazines, 2 pamphlets, 2 documentaries and 1 poster have been generated.

Scientific dissemination is complemented by the conservation program, focused on cultural heritage, which is in charge of the units of Archeology, Laboratory of Archaeological Materials, Restoration and Maintenance; and the natural heritage conservation program is in charge of the Ecology unit. On the other hand, with public and private education programs in which various educational workshops will be developed, aimed at children and young students, in order to promote cultural and natural heritage. Faced with the health

crisis, which is being experienced throughout the world, due to the COVID-19 pandemic, the Tak'alik Ab'aj National Archaeological Park implemented new strategies to adapt the policies and programs that have been developed in previous decades ; For this reason, the use of the social network Facebook has become an effective tool to transmit information about the park, and in turn measure how people know about the park, giving the following result:

Personal communication:	70%
T.V.:	7%
Radio:	7%
Newspaper:	4%
Printed information and booklets:	3%
Travel agencies:	3%
Internet:	2%
Advertising signs along the road:	2%
Tour guide books:	1%
Academic conferences:	1%

5.j Staffing levels and expertise (professional, technical, maintenance)

For 33 years (1987) archaeological investigations began at The National Archaeological Park Tak'alik Ab'aj by the Ministry of Culture and Sports with an organizational structure whose functionality was improved over the years, becoming the current one with a total of 97 collaborators distributed in 12 Operating Units that guarantee optimal management, care of the Park and attention to the public (see Annex II.17).

Staff Professional:

The professional staff of the park is made up of 2 collaborators who are in charge of the Administrative and Scientific Technical Coordination who are also the founders of it. The objective of the Administrative Technical Coordination is the planning, direction, coordination and supervision of the administrative aspects of the Park, its main functions being the elaboration of the Annual Operational Programs (POA), the management of the necessary resources for the operation of the different areas that make up the Park, detect needs and take strategic solutions from both the Park and the staff in charge, among others. While the Scientific Technical Coordination is in charge of advising and directing the works of archaeological scientific research, topography, archaeological restoration, archaeological laboratory and production of scientific publications and for all public.

Staff Technician: It is made up of 5 collaborators. They are in charge of carrying out specific studies such as the analysis of ceramics, obsidian, lithic, in the field, making reports for publications, supporting the park's projects in terms of scientific research. They have been working in the Park for more than 10 years. Two of these personnel are included in the Archaeological Research Unit, conducting archaeological investigations.

Archaeological investigation Unit: It has 15 collaborators with more than 30 years of experience obtained through daily practice. Its objective is the planning, coordination and execution of archaeological research activities and the determination of the areas where this will be carried out and the objectives to be achieved.

Topography Unit: This teamwork is responsible for producing faithful maps of the cultural landscape. Its main activity is to carry out

topographic surveys in the archaeological areas, initially within the nominated property and the archaeological site, and currently - since the site map is complete - in the archaeological areas peripheral to the site. It has 2 collaborators who have obtained their vast experience from more than 25 years of practice and use of the corresponding equipment.

Restoration Unit: With 6 employees, it is the teamwork in charge of guaranteeing the stability of the archaeological buildings and sculptures for their conservation and enhancement, safeguarding their integrity and authenticity. The main activity of this work unit is the consolidation, restoration of archaeological remains and their constant monitoring and maintenance. The unit team has experience in the field for more than 25 years.

Laboratory Archaeological Materials: It is responsible for the control, safeguarding and exhibition of portable archaeological materials from excavations and their study and conservation. It has 4 collaborators, including two operatives with more than 30 years of experience in the work and two technicians with 10 years of experience in the study of lithics, obsidian and ceramics.

Documentation Center: It is responsible for safeguarding the written, graphic and photographic, physical and digital heritage and for creating the documentation of the data recovered in the field research. Its main function is to transform data from archaeological research excavations into educational data for the public, among others. It has a staff of 5 collaborators who have more than 12 years of experience performing the assigned work.

Infrastructure Unit: The objective of this unit is to create the necessary infrastructure to guarantee the operation of the park and for the comfort of the visitors. Its activities are the construction, monitoring and maintenance of the park's operational infrastructure and the one that is used for the visitor's comfort. It guarantees the proper functioning of the electrical system and water supply in the park. It has 6 collaborators with more than 25 years of experience in the field.

Ecology Unit: With 9 collaborators in the unit, its objective is the recovery of the original natural environment for the enhancement and conservation of the cultural remains exposed in the park and its main activities are: the reintroduction of the native vegetation of the region in the park, the constant monitoring and maintenance of the Wildlife Refuge and the cultivation and use of the renewable resource / vegetation. The staff has over 20 years of on-the-job experience.

Guardians, Guides and Entrance Fee Collection Unit: Se encarga de garantizar la cobertura de la seguridad diurna y nocturna del parque así como la gestión del cobro y actividades derivadas y el guiage personalizado a los visitantes, además de dar cumplimiento a la Ley de libre acceso a la información pública. Cuenta con 18 colaboradores con más de 30 años de experiencia, quienes trabajan por turnos de 12 horas.

Maintenance Unit: The unit has 15 collaborators. Its objective is to guarantee the decoration of the park (15.38 ha). The main activities of the unit are the daily maintenance and cleaning of the entire area and the monitoring and preventive maintenance of the sculptures and buildings, and the classification of solid waste generated in the park, among others. The staff has more than 30 years of experience in these tasks.

Administration Unit: With 13 collaborators, this unit aims to guarantee the effective and efficient administration of the park's personnel and resources. Among its main functions are to carry out the labor control of permanent and temporary personnel, to comply with the Law of free access to public information, to guarantee the optimal operating conditions of computer and photographic equipment, and power tools; guarantee that vehicles are in optimal conditions of use and cleanliness in the comfort and operational infrastructure of the park.



Monitoring

Monitoring

6.a Key indicators for measuring state of conservation

INDICATORS	PERIODICITY	LOCATION OF RECORDS
Conservation of the heritage in general and particularly in case of building and agriculture activities in private properties	Annually: Carrying out inspections, maintenance and/or repairs or restorations in the heritage Permanent: Good communication with owners of private properties in case of necessity of salvage in archaeology	Archive of the Documentation Center/Library of the National Archaeological Park Tak'alik Ab'aj
Protection of the Park from wrongful entrance of people	Permanent: Permanent surveillance in the perimeter or the Park	
Prevention of damages in the cultural heritage: Sculptures	Annually: 1. Substitution of 2 original sculptures by replicas to prevent deterioration of the originals from weathering. 2. Placing protective roofs over the sculptures	Archive of the Documentation Center/Library of the National Archaeological Park Tak'alik Ab'aj
Maintenance and cleaning of the sculptures of microorganism and other natural contamination	Permanent: There is a trained person (Park personnel) in charge of daily maintenance and cleaning of the sculptures in the Park = Core Zone	Archive of the Documentation Center/Library of the National Archaeological Park Tak'alik Ab'aj
Prevention of damages in the cultural heritage: Architecture	Every 5 years: 1. Restoration/setting in value of the buildings already investigated. 2. Prophylactic intervention in exposed and/or restored architecture.	Archive of the Documentation Center/Library of the National Archaeological Park Tak'alik Ab'aj

INDICATORS	PERIODICITY	LOCATION OF RECORDS
Safekeeping of special artifacts made of precious materials as jadeite	Permanent: Every time special materials are recovered, these are deposited in safes of the local bank system; meanwhile the Archaeological Museum Tak'alik Ab'aj El "Caracol del Tiempo" José Luis Ralda González will be functioning. Archaeological material in general is safe kept at the Ceramic and Archaeological Material Laboratory of the Park.	Ceramic and Archaeological Material Laboratory of the National Archaeological Park Tak'alik Ab'aj and Archive of the Documentation Center/Library of the National Archaeological Park Tak'alik Ab'aj
Contamination by air aspersions of pesticides	Agreements in progress with the owners of the properties around the Park to prevent chemical contamination	Archive of the Documentation Center/Library of the National Archaeological Park Tak'alik Ab'aj
Prevention of disasters caused by the electric fluid (until now there are no antecedents)	Every 6 months: Preventive monitoring carried out by an electrician (Park personnel)	Archive of the Documentation Center/Library of the National Archaeological Park Tak'alik Ab'aj
Control of the touristic carrying capacity of the Park = Core Zone	Annually: Applying the daily/annual register/inventory of visits provides the data to detect specific dates of high affluence and to establish/adapt the margins of carrying capacity for these specific occasions, as well as year-round.	Archive of the Documentation Center/Library of the National Archaeological Park Tak'alik Ab'aj
Construction of alternative altars to serve the indigenous people in the performance and perpetuation of their ancestral ritual traditions' ceremonies	Annually: 1. Construction of additional alternative altars to cover the growing demand 2. Maintenance and restoration of the already built ones	Archive of the Documentation Center/Library of the National Archaeological Park Tak'alik Ab'aj
Conservation and Restoration Program established since beginning of the Park	Monthly: Reports on the monitoring and interventions planned in the Annual Operative Program	Archive of the Documentation Center/Library of the National Archaeological Park Tak'alik Ab'aj
Restoration/setting in value of 45% (10 structures) of the buildings with stone revetment in the Park = Core Zone	Every 5 years: 1. Restoration/setting in value of the investigated and documented buildings 2. Prophylactic intervention in restored and/or exposed buildings	Archive of the Documentation Center/Library of the National Archaeological Park Tak'alik Ab'aj
55% (11 structures) of clay architecture with earthen protective layer and grass surface covering for protection and conservation in the Park = Core Zone	Monthly: Maintenance and monitoring of the grass covering and pluvial water disposal conduits	Archive of the Documentation Center/Library of the National Archaeological Park Tak'alik Ab'aj

INDICATORS	PERIODICITY	LOCATION OF RECORDS
Replicas of sculptures located in the private properties	Eventually	Archive of the Documentation Center/Library of the National Archaeological Park Tak'alik Ab'aj
Restoration of buildings in the private properties	Eventually	Archive of the Documentation Center/Library of the National Archaeological Park Tak'alik Ab'aj
Surface recollection of archaeological material (ceramics, stone tools) in the private properties	Eventually	Archive of the Documentation Center/Library of the National Archaeological Park Tak'alik Ab'aj
Consolidation, restoration, and replicas of ceramic and other archaeological artifacts recovered from carefully conducted and documented excavations	Monthly	Ceramic and Archaeological Material Laboratory of the National Archaeological Park Tak'alik Ab'aj and Archive of the Documentation Center/Library of the National Archaeological Park Tak'alik Ab'aj
Archaeological Investigations in the plazas and buildings located in the private properties and/or surrounding areas of the region	Annually: Upon request of the private properties owners, in case of necessity of archaeological salvage and specific research objectives	Archive of the Documentation Center/Library of the National Archaeological Park Tak'alik Ab'aj
Record and systematic documentation of the data from the excavations following the corresponding methodology	Daily	Archive of the Documentation Center/Library of the National Archaeological Park Tak'alik Ab'aj
Register of each visitor and vehicle that enter to the park	Daily	Archive of the Documentation Center/Library of the National Archaeological Park Tak'alik Ab'aj
Personalized and trained guides provided to each group of visitors for the specially designed tour trails through the Park = Core Zone	Daily	Archive of the Documentation Center/Library of the National Archaeological Park Tak'alik Ab'aj
Creation and maintenance of the Wildlife Refuge for local endangered registered species	Daily: The personnel of the Ecology Unit of the Park is in charge of the maintenance of the refuge and its inhabitants	Archive of the Documentation Center/Library of the National Archaeological Park Tak'alik Ab'aj
Regeneration with the local vegetation in 75% of the Park area to recover the natural environment of the ancient archaeological center and region	Biannually: In the rain season	Archive of the Documentation Center/Library of the National Archaeological Park Tak'alik Ab'aj

6.b Administrative arrangements for monitoring property

The monitoring and maintenance of the heritage inside the 15.38 ha of the National Archaeological Park Tak'alik Ab'aj is constant, meanwhile in the Properties and Private Natural Reserves this is undertaken annually. Administrative arrangements do not exist between the proprietors and the Park. The interaction and communication mechanism are by means of written request for authorization to visit these properties for the pertinent inspections, which documentation is shared with the owners and kept in the Archive of the Documentation Center/Library of the National Archaeological Park Tak'alik Ab'aj.

6.c Results of previous reporting exercises

Since the beginning of the excavation and restoration work at the National Archaeological Park Tak'alik Ab'aj in 1987 the corresponding conservation, restoration and setting value of heritage programs run parallel and are based in the archaeological investigation, which provides the guidelines for the first (see section 2.b and section 4.a).

The constant monitoring as an essential part of the maintenance and perennial conservation program provides the information (reports) which is the feedback for the further actions to be taken by these very same programs. This procedure provides the necessary and actualized guidelines for the practical implementation of actions to continuously grant the conservation of the patrimony. The result of these proceedings is reflected in the annual institutional reports.



Documentation

Documentation

7.a Photographs and audiovisual image inventory and authorization form

Image No	Format	Caption	Date of Photo	Photographer	Copyright owner	Contact details of copyright owner	Non exclusive cession of rights
1	JPG	Location of Guatemala	2020		Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
2	JPG	Location of Rethaluleu	2020		Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
3	JPG	Location of Tak'alik Ab'aj in the Municipality of El Asintal	2020		Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
4	JPG	Map of the Archaeological Site and Nominated Property	2020		Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
5	JPG	Aerial view of the location of Archaeological Site and the nominated property	2020		Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
6	JPG	Map referring the donation of land in favor of the National Archaeological Park Tak'alik Ab'aj	2020		Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
7	JPG	Map of the nominated property and Preliminary Protection Strip	2020		Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
8	JPG	Natural landscape that borders the Tak'alik Ab'aj archaeological site	2020	Sergio Montúfar	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
9	JPG	Campephilus guatemalensis	2020	Ottoniel Cojúlum	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
10	JPG	Chiroxiphia linearis	2020	Ottoniel Cojúlum	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed

Image No	Format	Caption	Date of Photo	Photographer	Copyright owner	Contact details of copyright owner	Non exclusive cession of rights
11	JPG	Buteo magnirostris	2020	Otoniel Cojulúm	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
12	JPG	Established comercial rutes in the region associated with the Olmecan and Mayan worldview	2006		Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
13	JPG	Architectural groups inside of the Tak'alik Ab'aj archaeological site	2010		Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
14	JPG	Ocupation timeline of the archaeological site Tak'alik Ab'aj	2004		Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
15	JPG	The "Omligo-Mux" and Structure 6 on the terrace 3.	2020	Sergio Montúfar	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
16	JPG	Hydraulic system implemented in the Tak'alik Ab'aj archaeological site	2020		Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
17	JPG	Reuse of monuments in building systems.	2020	National Archaeological Park Tak'alik Ab'aj	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
18	JPG	Map of location of structures and altars	2020		Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
19	JPG	Stela 87	2019	Oswaldo Chinchilla	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
20	JPG	Altar 48	2020	Francisco Soto	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
21A	JPG	Stela 5 in front of Structure 12	2020	Sergio Montúfar	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
21B	JPG	Stela 5	2020	Francisco Soto	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
22	JPG	Open air museum in Plaza Tukur-B'alam	2020	Sergio Montúfar	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
23	JPG	Bearer of the Ancestor Sculpture	2010	National Archaeological Park Tak'alik Ab'aj	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed

Image No	Format	Caption	Date of Photo	Photographer	Copyright owner	Contact details of copyright owner	Non exclusive cession of rights
24	JPG	Grandfather's Descent Sculpture	2020	Francisco Soto	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
25	JPG	Astronomic Observatory	2020	National Archaeological Park Tak'alik Ab'aj	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
26	JPG	Location of the Astronomical Observatory and "Piecitos" altar	2020	Sergio Montúfar/Francisco Soto	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
27	JPG	Jadeite offering in Burial No. 2	2020	Francisco Soto	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
28	JPG	Structure 74, which incorporates the Potbelly style	2020	National Archaeological Park Tak'alik Ab'aj	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
29	JPG	Evidence of writing in Mesoamerica	2007		Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
30	JPG	Offering in Structure 7 where early Maya-style material was located.	2007	National Archaeological Park Tak'alik Ab'aj	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
31	JPG	Offering associated to the introduction of the early Maya style.	2014	National Archaeological Park Tak'alik Ab'aj	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
32	JPG	Mayan ceremony performed in the National Archaeological Park Tak'alik Ab'aj	2020	National Archaeological Park Tak'alik Ab'aj	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
33	JPG	Area where the Market was located in the archaeological site Tak'alik Ab'aj	2020	National Archaeological Park Tak'alik Ab'aj	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
34	JPG	Monument 23	2020	National Archaeological Park Tak'alik Ab'aj	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
35	JPG	Monument 93	2006	National Archaeological Park Tak'alik Ab'aj	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
36	JPG	Stela 4	2004	National Archaeological Park Tak'alik Ab'aj	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
37	JPG	Stela 1	2020	National Archaeological Park Tak'alik Ab'aj	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
38	JPG	Plan of the urban center of Tak'alik Ab'aj.	2020	National Archaeological Park Tak'alik Ab'aj	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed

Image No	Format	Caption	Date of Photo	Photographer	Copyright owner	Contact details of copyright owner	Non exclusive cession of rights
39	JPG	Excavation of the Ball Court in Tak'alik Ab'aj	2020	National Archaeological Park Tak'alik Ab'aj	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
40	JPG	Excavation of the Stepped Structure inside Structure 7	2011	National Archaeological Park Tak'alik Ab'aj	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
41	JPG	Structure 6 shows the introduction of the Mayan architectural style.	2019	National Archaeological Park Tak'alik Ab'aj	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
42	JPG	Structure 5 shows a stone staircase. This is how the K'iche's found the city around 900 AD	2020	National Archaeological Park Tak'alik Ab'aj	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
43	JPG	Stela 13	2020	National Archaeological Park Tak'alik Ab'aj	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
44	JPG	Seriation Proposal of Early Mayan Sculpture at Tak'alik Ab'aj	2020	National Archaeological Park Tak'alik Ab'aj	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
45	JPG	First recorded writings in Tak'alik Ab'aj	2020	National Archaeological Park Tak'alik Ab'aj	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
46	JPG	Writing system represented in Stela 2	2020	National Archaeological Park Tak'alik Ab'aj	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
47	JPG	Monument 99	2020	National Archaeological Park Tak'alik Ab'aj	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
48	JPG	Offering composed of jade mosaics	2020	National Archaeological Park Tak'alik Ab'aj	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
49	JPG	Miniature ceremonial heads of jadeite mosaics	2020	National Archaeological Park Tak'alik Ab'aj	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
50	JPG	Ceramic evolution in Tak'alik Ab'aj	2020	National Archaeological Park Tak'alik Ab'aj	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
51	JPG	"Las Muñecas" Offering	2020	National Archaeological Park Tak'alik Ab'aj	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
52	JPG	Burial No. 2 at Tak'alik Ab'aj	2017	National Archaeological Park Tak'alik Ab'aj	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
53	JPG	Cronological chart of Tak'alik Ab'aj	2014	National Archaeological Park Tak'alik Ab'aj	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed

Image No	Format	Caption	Date of Photo	Photographer	Copyright owner	Contact details of copyright owner	Non exclusive cession of rights
54	JPG	Central Group of the National Archaeological Park Tak'alik where there is evidence of different sculptural styles	2015	National Archaeological Park Tak'alik Ab'aj	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
55	JPG	Preparation and celebration of Mayan ceremonies inside the National Archaeological Park Tak'alik Ab'aj	2020	Francisco Soto	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
56	JPG	Location of sites in the South Coast linked to Ceramic Traditions	2011		Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
57	JPG	Astronomic Observatory at Structure 7, National Archaeological Park Tak'alik Ab'aj	2020	National Archaeological Park Tak'alik Ab'aj	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
58	JPG	The Cosmogram in the archaeological remains and the current ceremonial rites at Tak'alik Ab'aj	2020	National Archaeological Park Tak'alik Ab'aj	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
59	JPG	Structure 6, terrace 3 with the characteristic regional constructive pattern	2020	National Archaeological Park Tak'alik Ab'aj	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
60	JPG	Restoration process of south access ramp Structure 6	2020	National Archaeological Park Tak'alik Ab'aj	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
61	JPG	Restoration process of miniature ceremonial heads of jadeite mosaics	2020	National Archaeological Park Tak'alik Ab'aj	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
62	JPG	Causeway at Terrace 3	2019	National Archaeological Park Tak'alik Ab'aj	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
63	JPG	Legal map of the donations	2020	National Archaeological Park Tak'alik Ab'aj	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
64	JPG	Artisans at National Archaeological Park Tak'alik Ab'aj	2020	National Archaeological Park Tak'alik Ab'aj	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
65	JPG	Visitors Map of the National Archaeological Park Tak'alik Ab'aj	2020	National Archaeological Park Tak'alik Ab'aj	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
66	JPG	Visitors at the National Archaeological Park Tak'alik Ab'aj		National Archaeological Park Tak'alik Ab'aj	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed
67	JPG	Ceremonies celebrated in 2019 at National Archaeological Park Tak'alik Ab'aj		National Archaeological Park Tak'alik Ab'aj	Vice ministry of Cultural and Natural Heritage	Vice ministry of Cultural and Natural Heritage	Confirmed

7.b Texts relating to protective designation, copies of property management plans or documented management systems and extracts of other plans relevant to the property

Annex II.1

7.c Form and date of most recent records or inventory of property

Archaeological artifacts and monuments exposed in situ covered and uncovered

This inventory records each sculpture found at the site, inside the Park (nominated property) and in the private properties (fincas and Private Natural Reserves), and is actualized automatically in case a new monument is discovered. Annex IV.6 is the inventory of the 407 sculptures distributed on some of the terraces of the site, indicating whether they are plain or carved, dimensions and cultural style; the 141 sculpted monuments are grouped in the six cultural styles manifested at the site; 9 of these sculptures are in the National Museum of Archaeology and Ethnology in Guatemala City. (See also Annex III.1)

Archaeological materials stored at the Ceramic and Archaeological Material Laboratory of the National Archaeological Park Tak'alik Ab'aj

The archaeological artifacts recovered at the site during excavations or surface collections are registered when handed to the Laboratory where the pieces are cleaned, consolidated and restored, if necessary. The inventory records the pieces according to its provenance code based on the horizontal coordinate grid and vertical excavation

stratigraphy. Additionally, this inventory is constantly being updated as the material is coming in. Status of inventory December 2020. Annex IV.8 is the inventory of the material stored and available for consulting in the Laboratory; categorized by artifacts, material, and quantities, including ceramics, vessels, censers, lithic, obsidian, perishable material, among many others. Annex IV.7 is the inventory of figurines. (See also Annex III.1)

Archaeological buildings and constructions in situ (exposed or covered)

The last inventory of the structures in situ was carried out in December 2020. This inventory records correlatively in the order of “discovery” all buildings found at the archaeological site, inside the Park or in the private properties, and is constantly updated in case a new structure is detected, and included in the detailed map of the site with elevation contour lines at each 50 cm. Annex IV.5 is the inventory of the 94 structures located on the 10 terraces, South Group and the periphery. Annex IV.9 is the inventory of the 42 channels constructed in the different terraces of the site, from which 13 are for water supply, 27 for drainage, and 2 unidentified. (See also Annex III.1)

Wildlife Refuge

The personnel of the Ecology Unit records fauna which has been rescued, confiscated from illegal trafficking and delivered, or donated to the Wildlife Refuge, that serves as a refuge shelter and to propitiate the conservation of the endangered species. The inventory is constantly fluctuating according to the reception and as well the success in rehabilitation of the specimens, which are registered monthly at the National Council of Protected Areas (CONAP). Up to this date the inventory of the Refuge counts with their local and scientific names 21 different species from which 12 are mammals, 5 reptiles, and 4 birds, with a total of 80 animals (see Annex IV.2).

Wildlife Fauna

This inventory is carried out by the personnel of the Ecology Unit and it records species living freely in the Park. This inventory details only the existence of the different species, but still lacks the numbers of each species. Up to this date 79 different species have been recorded, from which 12 are mammals, 21 reptiles and batrachians, 38 birds, and 5 migratory birds, as well as 3 species identified living freely outside the Park in the surrounding private property (see Annex IV.3; IV.4).

Forest

This inventory is carried out by the personnel of the Ecology Unit, and it records the different species which conform the forest in the Park and still lacks the numbers of each species. The current inventory counts 214 species of flora classified in 19 species recognized before and during the creation of the National Project since 1987, 13 exotic species, 79 species proper of the natural ecosystems whose context is framed within the approach included in the ecology program, 28 species which still require the collection of samples and their taxonomical analysis in an herbarium, 43 species of herbaceous stem which have been regenerated by the ecology program, 15 species of exotic herbaceous plants present in the area due to the agricultural crops, and other 17 pre-Columbian species of bushes and herbaceous plants. (see Annex IV.1).

Archaeobotanical Garden

In order to present the plants verified by the archaeological record to the visitors, current efforts are already underway to strengthen the "Archaeobotanical Garden"; this will also help to avoid that some plants become extinct in the region. Up to date 28 edible and 18 medicinal plant species have been recorded (see Annex IV.10).

7.d Address where inventory, records and archives are held

Viceministry of Cultural and Natural Heritage
6A Calle, Cdad. de Guatemala 01001
Guatemala City, Guatemala

7.e Bibliography

References Publications that are cited in the text; some selected references can be consulted in Annex VII.18

Bachand, Bruce R., and Lynne S. Lowe. 2012. Chiapa de Corzo's Mound 11 Tomb and the Middle Formative Olmec. In *Arqueología Reciente de Chiapas: Contribuciones del Encuentro Celebrado en el 60° Aniversario de la Fundación Arqueológica Nuevo Mundo*. Edited by Lynne S. Lowe, and Mary E. Pye. Papers of the New World Archaeological Foundation Number Seventy-Two. Brigham Young University, Provo, Utah. pp. 45-68

Badilla, Adrián and Francisco Corrales. 2009. Investigaciones arqueológicas en sitios con esferas de piedra, Delta del Diquís. Excavaciones en el sitio P-254 Sector Finca 6. Temporada 2007. Manuscript on file, Departamento de Antropología e Historia, Museo Nacional de Costa Rica.

Badilla, Adrián and Francisco Corrales. 2012. Investigaciones arqueológicas en sitios con esferas de piedra, Delta del Diquís. Excavaciones en el sitio Finca 6, Estructura Funeraria 1. Temporada 2011. Manuscript on file, Departamento de Antropología e Historia, Museo Nacional de Costa Rica.

- Balcárcel, Beatriz. 1995. Abaj Takalik: Arquitectura y Simbolismo del Templo 12. Tesis de Licenciatura, Escuela de Historia. Universidad de San Carlos de Guatemala.
- Bell, Ellen E., Marcello A. Canuto y Robert J. Sharer (editores). 2004. Understanding Early Classic Copan. University of Pennsylvania Museum of Archaeology and Anthropology, Philadelphia, PA.
- Blanton, R.E., Feinman, G.M., Kowalewski, S.A. and Finsten, L. 1993. Ancient Mesoamerica: A Comparison of Change in Three Regions. 2nd edn. Cambridge: Cambridge University Press.
- Cahn, Robert and Marcus Winter. 1993. The San José Mogote Danzante. In *En INDIANA* 13, pp. 39-64. Berlin
- Carrasco, Ramón, Susana Rojas G.C. and Simon Martin. 2000. Calakmul, la gran urbe maya. Ed. Arqueología Mexicana Vol. VII, Num. 42, México, 2000
- Colman, Arlene. 2010. The Construction of Complex A at La Venta, Tabasco Mexico: A History of Buildings, Burials, Offerings, and Stone Monuments. Master of Art, Tesis, August 2012. Department of Anthropology, Brigham Young University.
- Consejo Nacional de Desarrollo Urbano y Rural (Conadur). 2014. Plan Nacional de Desarrollo K'atun: nuestras Guatemala 2032. Guatemala: Conadur/Segeplán. pp. 9-13, 176, 203-205.
- Concejo Municipal de El Asintal, Retalhuleu. 2019. Plan de Desarrollo y Ordenamiento Territorial Municipio de El Asintal, Retalhuleu 2019 – 2032, El Asintal, Retalhuleu: Concejo Municipal. pp. 12.
- Corrales, Francisco and Adrián Badilla. 2011. Investigaciones arqueológicas en sitios con esferas de piedra, Delta del Diquís. Excavaciones en los sitios Finca 6 (P-254-F6) y Batambal (P-299-Bt). Temporada 2010. Manuscript on file, Departamento de Antropología e Historia, Museo Nacional de Costa Rica.
- Corrales, Francisco, Adrián Badilla and Javier Artavia. 2007. Investigaciones arqueológicas en sitios con esferas de piedra, Delta del Diquís. Excavaciones en el Sitio P-254 Sector Finca 6. Temporada 2005. Manuscript on file, Departamento de Antropología e Historia, Museo Nacional de Costa Rica.
- Crasborn Chavarría, José. 2007. La historia de Tak'alik Ab'aj vista a través de la obsidiana. Ponencia presentada en la Tercera Conferencia Lítica Maya, 18-20 julio 2007, organizadores Zachary Hruby y Oswaldo Chinchilla, Museo Popol Vuh.
- Crasborn Chavarría, José and Elizabeth Marroquín. 2006. Los Patrones Constructivos de Tak'alik Ab'aj. Proyecto Nacional Tak'alik Ab'aj, Ministerio de Cultura y Deportes, Dirección General del Patrimonio Cultural y Natural/IDAEH. In XIX Simposio de Investigaciones Arqueológicas en Guatemala, 2005, Edited. by Juan Pedro Laporte, Barbara Arroyo, Héctor Mejía. Museo Nacional de Arqueología y Etnología, Guatemala pp. 41-50.
- Declaración de México Sobre las Políticas Culturales. 1982. Conferencia mundial sobre las políticas culturales México D.F.
- Demarest, Arthur A. 1986. The Archaeology of Santa Leticia and the Rise of Maya Civilization. Middle American Research Institute, Publications 52. Edited by Anne E. Collins and E. Wyllys Andrews V., Tulane University, New Orleans. Miraflores Ceramic Sphere: pp. 155-194.

Demarest, Arthur A. and Robert J. Sharer. 1986. Late Preclassic Ceramic Spheres, Culture Areas, and Cultural Evolution in the Southeastern Highlands of Mesoamerica. The Southeast Maya Periphery. Edited by Patricia A. Urban and Edward M. Schortman, 194-223. Austin: University of Texas Press, USA.

Diehl, Richard A. 2004. The Olmecs America's First Civilization. Thames & Hudson Ltd, London.

Drolet, Robert. 1983. Al otro lado de Chiriquí, El Diquís: In Nuevos Datos para la integración cultural de la Región Gran Chiriquí. Vínculos 9 (1-2): 25-76.

Drolet, Robert .1988. The Emergence and Intensification of Complex Societies in Pacific Southern Costa Rica. In: Archaeology and Art in Costa Rican Prehistory, edited by F. Lange, pp.163-188. University of Colorado Press, Boulder.

Drolet, Robert. 1992. The House and the Territory: The Organizational Structure for Chiefdom Art in the Diquís Subregion of Greater Chiriquí. In: Wealth and Hierarchy in the Intermediate Area, edited by F. W.Lange. Dumbarton Oaks, Washington, D.C. pp.207-241

Englehardt Joshua D. and Michael D. Carrasco. 2019. Interregional Interaction in Ancient Mesoamerica. Louisville: University of Colorado Press

Espigares Luarca, Carlos. 2019. La obsidiana en la corte y en el hogar : In El Mundo de Tak'alik Ab'aj. Edited by Christa Schieber de Lavarreda, pp.74-78. Parque Arqueológico Nacional Tak'alik Ab'aj, Ministerio de Cultura y Deportes, Dirección General del Patrimonio Cultural y Natural/IDAEH, El Asintal, Retalhuleu

Fash, William L. 1991. Scribes, Warriors and Kings: The City of Copán and the Ancient Maya. London, New York: Thames and Hudson.

Flores López, Víctor Hugo. 2019. Las piedras para preparar alimentos: In El Mundo de Tak'alik Ab'aj. Edited by Christa Schieber de Lavarreda. Parque Arqueológico Nacional Tak'alik Ab'aj, Ministerio de Cultura y Deportes, Dirección General del Patrimonio Cultural y Natural/IDAEH, El Asintal, Retalhuleu. pp.66-73

González Lauck, Rebecca B. 1996. La Venta: An Olmec Capital. In Olmec Art of Ancient Mexico. Edited by Elizabeth P. Benson y Beatriz de la Fuente Board of Trustees, National Gallery of Art, Washington, Distributed by Harry N. Abrams, Inc New York. pp.73-81.

Graham, John A. 1992. Escultura en Bulto Olmeca y Maya en Abaj Takalik: Su Desarrollo y Portento. In IV Simposio de Investigaciones Arqueológicas en Guatemala, 1990. Museo Nacional de Arqueología y Etnología, Guatemala.

Graham, John. 2008. Leyendo el pasado: la arqueología y el curioso caso de la Estela C de Tres Zapotes. In Olmeca: Balance y Perspectivas. Memoria de la Primera Mesa Redonda. Coordinadores María Teresa Uriarte y Rebecca González Lauck, 1:39-63, Consejo Nacional para la Cultura y las Artes, Instituto Nacional de Antropología e Historia, Instituto de Investigaciones Estéticas a través de la Dirección General de Publicaciones y Fomento Editorial, Universidad Nacional Autónoma de México y Fundación Arqueológica del Nuevo Mundo-Universidad Brigham Young, México.

Graham, John A. and J. B. Porter. 1989. A Cycle 6 Initial Series? A Maya Boulder Inscription of the First Millennium B.C. from Abaj Takalik. In Mexican Aktuelle Informationen und Studien zu Mesoamerika, 11(3):46-49. Edited by Hanns J. Prem, Internationale Gesellschaft fuer Mesoamerika Forschung e. V., Berlin.

Graham, John A. and Larry Benson. 2005. Maya and Olmec Boulder Sculpture at Abaj Takalik: Its Development and Portent. In *Archaeology without Limits; Papers in honor of Clement W. Meighan*. B.D. Dillon & M.A. Bost, edited, pp. 345-367, Labyrinthos Press, Lancaster, CA.

Graham, John A., Robert F. Heizer, and Edwin M. Shook. 1978. Abaj Takalik 1976: Exploratory Investigations. Contributions of the University of California Archaeological Research Facility Number 36. Reprinted from *Studies in Ancient Mesoamerica*, III. Edited by John A. Graham, pp. 85-109. University of California, Department of Anthropology, Berkeley, Ca., USA.

Inomata, T., R. Ortiz, B. Arroyo and E.J. Robinson. 2014. Chronological revision of Preclassic Kaminaljuy'u, Guatemala: implications for social processes in the southern Maya area. *Latin American Antiquity* 25: 377-408.

Inomata, Takeshi, Daniela Triadan, Kazuo Aoyama, Victor Castillo, and Hitoshi Yonenobu. 2013. Early Ceremonial Constructions at Ceibal, Guatemala, and the Origins of Lowland Maya Civilization. *Science* 340(6131):467-471.

Instituto Guatemalteco de Turismo (INGUAT). 2015. Plan Maestro de Turismo Sostenible de Guatemala 2015-2025, pp. 1-2, 17, 32, 44, 50. Guatemala: INGUAT.

Ito, Nobuyuki and David Stuart. 2019. Chalchuapa: Capital regional en el occidente de El Salvador. *Arqueología Mexicana* 26 (155): 82-87.

Ito, Nobuyuki, Carlos Flores Manzanera y Nobuhiko Aiba. 2020. Un Fragmento de Estela Relacionada al Bak'tun 7 en Chalchuapa. In XXXIII Simposio de Investigaciones Arqueológicas en Guatemala 2019. Museo Nacional de Arqueología y Etnología, Guatemala.

Johnson M. and Pope, K. 1983. Abaj Takalik, Retalhuleu, Guatemala: Map A, B, C, D, E Abaj Takalik 1976: Exploratory Investigations. Contributions of the University of California Archaeological Research Facility Number 36, January 1978. Reprinted from *Studies in Ancient Mesoamerica*, III, Edited by John A. Graham, pp. 85-109. University of California, Department of Anthropology, Berkeley, Ca., USA.

Lacadena, Alfonso. 2010. Escritura y lengua en Tak'alik Ab'aj: Problemas y propuestas. En *Mesa redonda: Pozole de signos y significados. Juntándonos en torno a la epigrafía e iconografía de la escultura Preclásica* (organizado por Christa Schieber de Lavarreda y Miguel Orrego Corzo). In XXIII Simposio de Investigaciones Arqueológicas en Guatemala, 2009. Edited by B. Arroyo, A. Linares y L. Paiz. Museo Nacional de Arqueología y Etnología, Guatemala. pp.1022-1039.

Larios, Carlos Rudy and Miguel Orrego Corzo. 1997. Términos de Referencia para la Conservación de Tikal. Proyecto de Conservación Tikal Etapa I. Edit. CRISARQ-CONSULT, Guatemala, C.A.

Love, Michael W. 1999. Intercambio y consumo de la obsidiana en la Costa Sur occidental durante el Preclásico Medio. In *Taller Arqueología de la Región de la Costa Sur de Guatemala*, edited by Christa Schieber de Lavarreda. Proyecto Nacional Abaj Takalik, Ministerio de Cultura y Deportes, Dirección General del Patrimonio Cultural y Natural/IDAEH, Guatemala.

Lowe, Gareth W. 1977^a. Comunidades de Chiapas relacionadas con los olmecas. In *Los Olmecas de Mesoamérica*. John E. Clark, coordinador, pp. 124. Ediciones del Equilibrista y Toner Libros. Madrid.

Lowe, Gareth W. 1977b. The Mixe-Zoque as Competing Neighbors of the Early Lowland Maya. In *The Origins of Maya Civilization*. Richard E. W. Adams (ed.), University of New Mexico Press. Albuquerque, 1977, p. 197-248.

Lowe, Gareth W. 1998. Los olmecas de San Isidro en Malpaso, Chiapas. Colección Científica No. 371. Instituto Nacional de Antropología e Historia/Centro de Investigaciones Humanísticas de Mesoamérica/Gobierno del Estado de Chiapas/Universidad Nacional Autónoma de México. 1998, 96 p. ISBN 968-36-4624-7.

Lowe, Lee and Martinez. 1982. Izapa: An Introduction to the Ruins and Monuments: Album. Papers of the New World Archaeological Foundation, No. 31 Provo. New World Archaeological Foundation. Brigham Young University, Provo, Utah., USA.

Marcus, Joyce and Kent Flannery. 1996. Zapotec Civilization. How Urban Society Evolved in Mexico's Oaxaca Valley. Thames & Hudson, London.

Marroquín Alvarez, Elizabeth. 2005. El manejo del agua en Tak'alik Ab'aj: la evidencia de canales prehispánicos. Proyecto Nacional Tak'alik Ab'aj, Ministerio de Cultura y Deportes, Dirección General del Patrimonio Cultural y Natural/IDAEH. In XVIII Simposio de Investigaciones Arqueológicas en Guatemala, 2004. Edited by Juan Pedro Laporte, Barbara Arroyo, Héctor Mejía. Museo Nacional de Arqueología y Etnología, Guatemala. pp. 997-1008.

Marroquín Alvarez, Elizabeth. 2007. El Sistema Hidráulico de Tak'alik Ab'aj, evidencia de canales de desagüe y abastecimiento. Tesis de Licenciatura, Escuela de Historia. Universidad de San Carlos de Guatemala.

Milbrath, Susan. 2017. The Role of Solar Observations in Developing the Preclassic Maya Calendar. *Latin American Antiquity* 28(1);88–104. The Society for American Archaeology.

Miles, Suzanne. 1965. Sculpture of the Guatemala-Chiapas Highland and Pacific Slopes and Associated Hieroglyphs. *Handbook of Middle American Indians Vol. 2, Archaeology of Southern Mesoamerica Part I*. Gordon Willey, volume editor. University of Texas Press, Austin, USA. pp. 237-275.

Norman, V. Garth. 1973. Izapa Sculpture: Part 1: Album. Papers of the New World Archaeological Foundation, No. 30. Provo. New World Archaeological Foundation. Brigham Young University, Provo, Utah., USA.

Marroquín Alvarez, Elizabeth. 1976. Izapa Sculpture. Part 2. Papers of the New World Archaeological Foundation No. 30.

Orrego Corzo, Miguel. 1990. Reporte 1. Investigaciones Arqueológicas en Abaj Takalik, El Asintal, Retalhuleu 1988. Edited by Miguel Orrego, Proyecto Nacional Abaj Takalik, Ministerio de Cultura y Deportes, Dirección General del Patrimonio Cultural y Natural/IDAEH, Guatemala.

Orrego Corzo, Miguel and Christa Schieber de Lavarreda. 2001. Compendio de monumentos expuestos en Abaj Takalik. Proyecto Nacional Abaj Takalik, Ministerio de Cultura y Deportes, Dirección General del Patrimonio Cultural y Natural/IDAEH. In XIV Simposio de Investigaciones Arqueológicas en Guatemala, 2000. Edited by Juan Pedro Laporte, Ana Claudia Suasnavar, Barbara Arroyo. Museo Nacional de Arqueología y Etnología, Guatemala pp. 917-938.

Paredes Umaña, Federico. 2012. Local symbols and regional dynamics: The Jaguar Head Core Zone. In *Southeastern Mesoamerica during the Late Preclassic*. Tesis doctoral Departamento de Antropología. Universidad de Pennsylvania.

Parque Arqueológico Nacional Tak'alik Ab'aj (PANTA). 2017. Portafolio de Gestión, Sistema de Gestión de la Calidad Turística. El Asintal, Retalhuleu: Parque Arqueológico Nacional Tak'alik Ab'aj.

Parque Arqueológico Nacional Tak'alik Ab'aj (PANTA). 2020. Plan de Manejo 2021-2025. El Asintal, Retalhuleu: Parque Arqueológico Nacional Tak'alik Ab'aj.

Parsons Lee, Allen. 1986. The Origins of Maya Art: Monumental Stone Sculpture of Kaminaljuyú, Guatemala, and the Southern Pacific Coast. *Studies in Pre-Columbian Art & Archaeology* 1986. (28):1-147. Dumbarton Oaks Research Library and Collection. Washington D.C., USA.

Pool, Christopher A. 2010. Stone Monuments and Earthen Mounds. *Polity and Placemaking at Tres Zapotes, Veracruz*. Pp. 97-127.

Popenoe de Hatch, Marion. 1971. An Hypothesis on Olmec Astronomy, with special reference to the La Venta Site in *Papers on Olmec and Maya Archaeology*. Reprint from Contributions of the University of California Archaeological Research Facility Number 13 (1-64). University of California, Department of Archaeology, Berkeley, California, USA.

Popenoe de Hatch, Marion. 1975. An Astronomical Calendar in a Portion of the Madrid Codex in *Archaeoastronomy in Precolumbian America* (283-340). Edited by A. Aveni. University of Texas Press, USA

Popenoe de Hatch, Marion. 1997. Kaminaljuyu/San Jorge: Evidencia Arqueológica de la Actividad Económica en el Valle de Guatemala 300 a.C. a 300 d.C. Universidad del Valle de Guatemala, Guatemala.

Popenoe de Hatch, Marion. 2002. Evidencia de un Observatorio Astronómico en Abaj Takalik. Proyecto Nacional Tak'alik Ab'aj, Ministerio de Cultura y Deportes, Dirección General del Patrimonio Cultural y Natural/IDAEH. In *XV Simposio de Investigaciones Arqueológicas en Guatemala, 2001*. Edited by Juan Pedro Laporte, Héctor Escobedo, Barbara Arroyo, Museo Nacional de Arqueología y Etnología, Guatemala. pp. 437-458.

Popenoe de Hatch, Marion. 2003. El Regreso del Felino en Abaj Takalik. Proyecto Nacional Tak'alik Ab'aj, Ministerio de Cultura y Deportes, Dirección General del Patrimonio Cultural y Natural/IDAEH. In *XVI Simposio de Investigaciones Arqueológicas en Guatemala, 2002*. Edited by Juan Pedro Laporte, Barbara Arroyo, Héctor Escobedo y Héctor Mejía, Ministerio de Cultura y Deportes, Instituto de Antropología e Historia, Asociación Tikal, Guatemala. Museo Nacional de Arqueología y Etnología, Guatemala. pp. 807-817.

Popenoe de Hatch, Marion. 2004. Un paso más en entender los inicios de Abaj Takalik. Proyecto Nacional Tak'alik Ab'aj, Ministerio de Cultura y Deportes, Dirección General del Patrimonio Cultural y Natural/IDAEH. In *XVII Simposio de Investigaciones Arqueológicas en Guatemala, 2003*. Edited by Juan Pedro Laporte, Barbara Arroyo, Héctor Escobedo, Héctor Mejía, Museo Nacional de Arqueología y Etnología. Guatemala. pp. 437-447.

Popenoe de Hatch, Marion. 2006. Lo Olmeca y lo Maya en Tak'alik Ab'aj: Comentarios sobre arte, etnicidad e ideología. In *XIX Simposio de Investigaciones Arqueológicas en Guatemala, 2005*. Edited by J.P. Laporte, B. Arroyo y H. Mejía, Museo Nacional de Arqueología y Etnología, Guatemala. pp.37-44.

Popenoe de Hatch, Marion. 2009a. Tak'alik' Ab'aj: El amanecer reemplaza a las estrellas. Proyecto Nacional Tak'alik Ab'aj, Ministerio de Cultura y Deportes, Dirección General del Patrimonio Cultural y Natural/IDAEH. In XXII Simposio de Investigaciones Arqueológicas en Guatemala, 2008. Edited by J.P. Laporte, B. Arroyo y H. Mejía, Museo Nacional de Arqueología y Etnología, Guatemala. pp.471-485.

Popenoe de Hatch, Marion. 2014. La Orientación de la Fila Este en Tak'alik Ab'aj. Parque Arqueológico Nacional Tak'alik Ab'aj, Ministerio de Cultura y Deportes, Dirección General del Patrimonio Cultural y Natural/IDAEH. In XXVII Simposio de Investigaciones Arqueológicas en Guatemala, 2013. Edited by B. Arroyo, L. Méndez Salinas y A. Rojas, Museo Nacional de Arqueología y Etnología, Guatemala. pp. 625-630.

Popenoe de Hatch, Marion. 2019a. Reloj de Sol Olmeca en Tak'alik Ab'aj. Parque Arqueológico Nacional Tak'alik Ab'aj, Ministerio de Cultura y Deportes, Dirección General del Patrimonio Cultural y Natural/IDAEH. In XXXI Simposio de Investigaciones Arqueológicas en Guatemala, 2018. Edited by B. Arroyo, L. Méndez Salinas y G. Ajú Alvarez, Museo Nacional de Arqueología y Etnología, Guatemala. pp. 205-210.

Popenoe de Hatch, Marion. 2019b. La cerámica de Tak'alik Ab'aj. Comité editorial Parque Arqueológico Nacional Tak'alik Ab'aj, Ministerio de Cultura y Deportes, Dirección General del Patrimonio Cultural y Natural e Dirección Técnica Instituto de Antropología e Historia, Guatemala.

Popenoe de Hatch, Marion. 2019c. Los alfareros, mercaderes y astrónomos en Tak'alik Ab'aj: In El Mundo de Tak'alik Ab'aj. Edited by Christa Schieber de Lavarreda, Parque Arqueológico Nacional Tak'alik Ab'aj, Ministerio de Cultura y Deportes, Dirección General del Patrimonio Cultural y Natural/IDAEH, El Asintal, Retalhuleu. pp. 118-137.

Popenoe de Hatch, Marion, and Christa Schieber de Lavarreda. 2001. Una revisión preliminar de la historia de Abaj Takalik. In XIV Simposio de Investigaciones Arqueológicas en Guatemala, 2000. Edited by J.P. Laporte, A.C. Suasnívar y B Arroyo, Museo Nacional de Arqueología y Etnología, Guatemala. pp. 1149-1171.

Popenoe de Hatch, Marion, Christa Schieber de Lavarreda and Miguel Orrego Corzo. 2011. Late Preclassic Developments at Tak'alik Ab'aj. In The Southern Maya in the Late Preclassic: The Rise and Fall of an Early Mesoamerican Civilization. Edited by Michael Love and Jonathan Kaplan, pp 203-236. University Press of Colorado.

Popenoe de Hatch, Marion and Carlos Alvarado. 2010. Rutas comerciales del Preclásico entre el Altiplano y la Costa Sur de Guatemala: implicaciones sociopolíticas. In XXIII Simposio de Arqueología en Guatemala 2009. Edited by B. Arroyo, A.L. Palma y L.P. Paiz Aragón, pp. 13-28. Museo Nacional de Arqueología y Etnología.

Popenoe de Hatch, Marion, Carlos Alvarado, and Tomás Barrientos. 2011. Nuevas evidencias sobre las relaciones comerciales entre el Norte de Quiché y el Oeste de La Verapaz. In XXIV Simposio de Arqueología en Guatemala 2010. Edited by B. Arroyo, L. Paiz, A. Linares and A. Arroyave, Museo Nacional de Arqueología y Etnología, Guatemala. pp.613-622.

Popenoe de Hatch, Marion, Christa Schieber de Lavarreda, Edgar Carpio Rezzio, Miguel Orrego Corzo, José Hector Paredes and Claudia Wolley. 2000. Observaciones sobre el desarrollo cultural en Abaj Takalik, Departamento de Retalhuleu, Guatemala. Proyecto Nacional Abaj Takalik, Ministerio de Cultura y Deportes, Dirección General del Patrimonio Cultural y Natural/IDAEH. In XIII Simposio de Investigaciones Arqueológicas en Guatemala, 1999. Edited by Juan Pedro Laporte, Héctor Escobedo, Ana Claudia Suasnavar, Barbara Arroyo, Museo Nacional de Arqueología y Etnología. Guatemala. pp. 159-170.

Popenoe de Hatch, Marion and Edwin M. Shook. 1999. La Arqueología de la Costa Sur. En Historia General de Guatemala, Tomo 1: época precolombina. Edited by M. Popenoe de Hatch, 171-190. Guatemala. Fondo para la Cultura y el Desarrollo.

Proskouriakoff, Tatiana. 1950. A Study of Maya Classic Sculpture. Carnegie Institution of Washington, Pub. 593. Washington, D.C.

Román, Otto. 2009. Informe Anual 2008. Archivo Parque Arqueológico Nacional Tak'alik Ab'aj, Ministerio de Cultura y Deportes, Instituto de Antropología e Historia, Dirección General del Patrimonio Cultural y Natural/IDAEH, El Asintal, Retalhuleu

Rosenswig Robert M. 2019. The Izapa Kingdom's Capital: Formative Period Settlement Patterns, Population, and Dating Low-Relief Stelae. Latin American Antiquity 30(1), 2019, The Society for American Archaeology. pp. 91–108.

Rosenswig, Robert M., Brendan J. Culleton, Douglas J. Kennett, Rosemary Lieske, Rebecca R. Mendelsohn and Yahaira Núñez-Cortés. 2018. The Early Izapa Kingdom: Recent Excavations, New Dating and Middle Formative Ceramic Analyses. Ancient Mesoamerica, 29 (2018), 373–393. Cambridge University Press.

Schieber de Lavarreda, Christa. 1994c. Abaj Takalik: Hallazgo de un Juego de Pelota del Preclásico Medio. Proyecto Nacional Abaj Takalik, Ministerio de Cultura y Deportes, Dirección General del Patrimonio Cultural y Natural/IDAEH. In VII Simposio de Investigaciones Arqueológicas en Guatemala, 1993. Edited by J. P. Laporte y H. L. Escobedo, Ministerio de Cultura y Deportes, Instituto de Antropología e Historia, Asociación Tikal, Museo Nacional de Arqueología y Etnología, Guatemala. pp. 95-111.

Schieber de Lavarreda, Christa. 1994d. A Middle Preclassic Clay Ball Court at Abaj Takalik, Guatemala. Proyecto Nacional Abaj Takalik, Ministerio de Cultura y Deportes, Dirección General del Patrimonio Cultural y Natural/IDAEH. In Mexican Aktuelle Informationen und Studien zu Mesoamerika, Vol. XVI, (4):77-84, Aug'94, Internationale Gesellschaft fuer Mesoamerika Forschung e. V., Berlin, Alemania Federal.

Schieber de Lavarreda, Christa. 1998a. Exploraciones hacia el oeste del Parque Arqueológico Abaj Takalik: El Escondite. Proyecto Nacional Abaj Takalik, Ministerio de Cultura y Deportes, Dirección General del Patrimonio Cultural y Natural/IDAEH. In XI Simposio de Investigaciones Arqueológicas en Guatemala, 1997. Edited by J. P. Laporte y H. L. Escobedo, vol. 1. Ministerio de Cultura y Deportes, Instituto de Antropología e Historia, Asociación Tikal, Museo Nacional de Arqueología y Etnología, Guatemala. pp. 339-357.

Schieber de Lavarreda, Christa. 2003a. Una Nueva Ofrenda de Abaj Takalik: El Entierro No. 1 de Abaj Takalik. Proyecto Nacional Tak'alik Ab'aj, Ministerio de Cultura y Deportes, Dirección General del Patrimonio Cultural y Natural/IDAEH. In XVI Simposio de Investigaciones Arqueológicas en Guatemala, 2002. Edited by J.

P. Laporte, B. Arroyo, H. L. Escobedo y H. E. Mejía, Ministerio de Cultura y Deportes, Instituto de Antropología e Historia, Asociación Tikal, Museo Nacional de Arqueología y Etnología, Guatemala. pp. 784-792.

Schieber de Lavarreda, Christa. 2006. Los Monumentos 31 y 38 situados en la Terraza 5, del Grupo Central, de Tak'alik Ab'aj en la Reserva Natural Privada "Buenos Aires" (Finca Buenos Aires). Reporte. Archivo Proyecto Nacional Abaj Takalik, Ministerio de Cultura y Deportes, Dirección General del Patrimonio Cultural y Natural.

Schieber de Lavarreda, Christa. 2008. Los Alcances del Mundo Olmeca en Tak'alik Ab'aj. In *Olmeca: Balance y Perspectivas*. Memoria de la Primera Mesa Redonda. Edited by María Teresa Uriarte y Rebecca González Lauck, 519-532, vol 2. Consejo Nacional para la Cultura y las Artes, Instituto Nacional de Antropología e Historia, Instituto de Investigaciones Estéticas a través de la Dirección General de Publicaciones y Fomento Editorial, Universidad Nacional Autónoma de México y Fundación Arqueológica del Nuevo Mundo-Universidad Brigham Young, México.

Schieber de Lavarreda, Christa. 2012c. La ciudad luz de la Costa Sur de Guatemala: Tak'alik Ab'aj. In *Ciudades Mesoamericanas*. Universidad Mesoamérica, Guatemala. Edited by Horacio Cabezas Carcache, Publicaciones Mesoamericanas. pp. 17-37.

Schieber de Lavarreda, Christa. 2015b. Cabezas ceremoniales de mosaicos de jadeíta de Tak'alik Ab'aj. *Revista Arqueología Mexicana*, XXIII (133): 62-67. Editorial Raíces S.A. de C.V./INAH.

Schieber de Lavarreda, Christa. 2016c. La Danza Ancestral de las Doncellas de Tak'alik Ab'aj. In *Mexicon Journal of Mesoamerican Studies*. XXXVIII (5):127–138. Oktober 2016, Verlag Anton Saurwein, Gatterburgstr. 15, 80689 München, Germany.

Schieber de Lavarreda, Christa. 2018b. Descubrimiento del Monumento 253 a y b, Estela 86 en Tak'alik Ab'aj-"El descenso del Abuelo" In boletín de prensa 2018. Parque Arqueológico Nacional Tak'alik Ab'aj, Ministerio de Cultura y Deportes, Instituto de Antropología e Historia, Dirección General del Patrimonio Cultural y Natural/IDAEH, El Asintal, Retalhuleu.

Schieber de Lavarreda, Christa and Geremías Claudio Pérez. 2006. La Cultura de Tak'alik Ab'aj y los Olmecas. Proyecto Nacional Tak'alik Ab'aj, Ministerio de Cultura y Deportes, Dirección General del Patrimonio Cultural y Natural/IDAEH. In *XIX Simposio de Investigaciones Arqueológicas en Guatemala, 2005*. Edited by Juan Pedro Laporte, Bárbara Arroyo y Héctor Mejía, Ministerio de Cultura y Deportes, Instituto de Antropología e Historia, Asociación Tikal, Fundación Arqueológica del Nuevo Mundo, Museo Nacional de Arqueología y Etnología, Guatemala. pp. 21-31.

Schieber de Lavarreda, Christa and Miguel Orrego Corzo. 2001a. Mil años de historia en Abaj Takalik. Proyecto Nacional Abaj Takalik, Ministerio de Cultura y Deportes/IDAEH. In *U tz'ib*, 3 (1):1-31, Dic. 2001. Asociación Tikal, Guatemala.

Schieber de Lavarreda, Christa and Miguel Orrego Corzo. 2001b. Los Senderos Milenarios de Abaj Takalik. Guía del parque. Proyecto Nacional Abaj Takalik, Ministerio de Cultura y Deportes, Dirección General del Patrimonio Cultural y Natural/IDAEH, Guatemala.

Schieber de Lavarreda, Christa and Miguel Orrego Corzo. 2002a. Abaj Takalik. Proyecto Nacional Abaj Takalik, Ministerio de Cultura y Deportes, Dirección General del Patrimonio Cultural y Natural/IDAEH, Fundación G&T-Continental, Guatemala.

Schieber de Lavarreda, Christa and Miguel Orrego Corzo. 2009a. El descubrimiento del Altar 48 de Tak'alik Ab'aj. Proyecto Nacional Tak'alik Ab'aj, Ministerio de Cultura y Deportes, Dirección General del Patrimonio Cultural y Natural/IDAEH. In XXII Simposio de Investigaciones Arqueológicas en Guatemala, 2008. Edited by J.P. Laporte, B. Arroyo y H. Mejia, Museo Nacional de Arqueología y Etnología, Guatemala. pp.456-470.

Schieber de Lavarreda, Christa and Miguel Orrego Corzo. 2009b. El Altar 48 de Tak'alik Ab'aj: Monumento al Nacimiento de la Cultura Maya. Proyecto Nacional Tak'alik Ab'aj, Ministerio de Cultura y Deportes, Dirección General del Patrimonio Cultural y Natural/IDAEH. In Antropología e Historia de Guatemala. Anuario de la Dirección General del Patrimonio Cultural y Natural III Época No. 8 Año 2009, Edited by Hugo Fidel Sacor Quiché y Patricia del Aguila Flores. Ministerio de Cultura y Deportes, Dirección General del Patrimonio Cultural y Natural, Guatemala. pp. 7-22.

Schieber de Lavarreda, Christa and Miguel Orrego Corzo. 2010a. La escultura "El Cargador del Ancestro (Ancestral)" y su contexto. En Mesa redonda: Pozole de signos y significados. Juntándonos en torno a la epigrafía e iconografía de la escultura Preclásica (organizado por Christa Schieber de Lavarreda y Miguel Orrego Corzo). In XXIII Simposio de Investigaciones Arqueológicas en Guatemala, 2009 edited by B. Arroyo, A. Linares y L. Paiz, Museo Nacional de Arqueología y Etnología, Guatemala. pp.974-991.

Schieber de Lavarreda, Christa and Miguel Orrego Corzo. 2010c. Preclassic Olmec and Maya Monuments and Architecture at Takalik Abaj. In The Place of Stone Monuments. Context, Use, and Meaning in Mesoamerica's Preclassic Transition. Dumbarton Oaks Pre-

Columbian Symposia and Colloquia. Dumbarton Oaks Research Library and Collection, Washington, D.C. edited by Julia Guernsey, John E. Clark and Barbara Arroyo, Dumbarton Oaks Trustees for Harvard University, Washington, D.C. pp. 177-205.

Schieber de Lavarreda, Christa and Miguel Orrego Corzo. 2011a. La Pasión del Señor de la Greca. Parque Arqueológico Nacional Tak'alik, Ministerio de Cultura y Deportes, Dirección General del Patrimonio Cultural y Natural/IDAEH. In XXIV Simposio de Investigaciones Arqueológicas en Guatemala, 2010. Edited by B. Arroyo, L. Paiz, A. Linares y A. Arroyave), Museo Nacional de Arqueología y Etnología, Guatemala. pp. 644-662.

Schieber de Lavarreda, Christa and Miguel Orrego Corzo. 2012a. El Retorno al ancestro en Tak'alik Ab'aj: Hallazgo del collar del ancestro del "Señor de la Greca". In XXV Simposio de Investigaciones Arqueológicas en Guatemala, 2011. Edited by Barbara Arroyo, Lorena Paíz y Héctor Mejía, Ministerio de Cultura y Deportes, Instituto de Antropología e Historia, Asociación Tikal, Museo Nacional de Arqueología y Etnología, Guatemala. pp.1045-1055.

Schieber de Lavarreda, Christa and Miguel Orrego Corzo. 2012b. Siguiendo las huellas de la tradición ritual en Tak'alik Ab'aj: Las celebraciones del solsticio de invierno y El Altar 46 "Piecitos". Proyecto Nacional Tak'alik Ab'aj, Ministerio de Cultura y Deportes, Dirección General del Patrimonio Cultural y Natural/IDAEH. In Antropología e Historia de Guatemala. Anuario de la Dirección General del Patrimonio Cultural y Natural. III Época No. 11, año 2012. Editora Patricia del Aguila Flores, Ministerio de Cultura y Deportes, Dirección General del Patrimonio Cultural y Natural, Guatemala. pp. 39-54.

Schieber de Lavarreda, Christa and Miguel Orrego Corzo. 2012d. Celebración del Último Día del Ciclo 13 B'aqtun en Tak'alik Ab'aj. Solsticio de Invierno, 21 Diciembre 2012. Conferencia presentada en V Convención Mundial Arqueología 2012 "La Cosmovisión a través del tiempo, tres mil años de historia", 15-17.6.2012, Antigua Guatemala.

Schieber de Lavarreda, Christa and Miguel Orrego Corzo. 2013a. Celebraciones del solsticio de invierno en Tak'alik Ab'aj: El ritual en el Altar 46 "Piecitos". In XXVI Simposio de Investigaciones Arqueológicas en Guatemala, 2012. Edited by B. Arroyo y L. Méndez, Ministerio de Cultura y Deportes, Instituto de Antropología e Historia, Asociación Tikal, Museo Nacional de Arqueología y Etnología, Guatemala. pp. 919-930.

Schieber de Lavarreda, Christa and Miguel Orrego Corzo. 2013b. Descubriendo el Entierro Real No. 2 de Tak'alik Ab'aj. Proyecto Nacional Tak'alik Ab'aj, Ministerio de Cultura y Deportes, Dirección General del Patrimonio Cultural y Natural/IDAEH. In Antropología e Historia de Guatemala. Anuario de la Dirección General del Patrimonio Cultural y Natural, III Epoca No. 12, Edited by Patricia del Aguila Flores. Ministerio de Cultura y Deportes, Dirección General del Patrimonio Cultural y Natural, Guatemala. p. 7-33.

Schieber de Lavarreda, Christa and Miguel Orrego Corzo. 2013c. Tak'alik Ab'aj, la ciudad "puente" entre la cultura olmeca y maya: 1,700 años de historia y su permanencia hasta la actualidad. In Millenary Maya Societies: Past Crises and Resilience. Edited by M.-Charlotte Arnauld and Alain Breton, pp. 187-198.

Schieber de Lavarreda, Christa and Miguel Orrego Corzo. 2021. Tak'alik Ab'aj and its neighbors in the fabric of the ritual market economy. In Routes, Interaction and Exchange in the Southern Maya

Region". Edited by Eugenia Robinson and Gavin Davies. Editorial Routledge, Abingdon, Inglaterra. (en preparación)

Schieber de Lavarreda, Christa, Francisco Garcia and Omar Alvarado. 2019c. El tesoro del mundo natural de Tak'alik Ab'aj: In El Mundo de Tak'alik Ab'aj. Edited by Christa Schieber de Lavarreda, Parque Arqueológico Nacional Tak'alik Ab'aj, Ministerio de Cultura y Deportes, Dirección General del Patrimonio Cultural y Natural/IDAEH, El Asintal, Retalhuleu. pp. 94-107.

Schieber de Lavarreda, Christa, Geremías Claudio and Miguel Orrego Corzo. 2018. Excavación del centro del mundo de Tak'alik Ab'aj: "Ombligo-Mux", testimonio de ingeniería civil con filosofía ancestral. In Mexican Journal of Mesoamerican Studies. Verlag Anton Saurwein, Gatterburgstr. 15, 80689 München, Germany In mexican Journal of Mesoamerican Studies. XL (3):70-82, June 2018, Verlag Anton Saurwein, Gatterburgstr. 15, 80689 München, Germany.

Schieber de Lavarreda, Christa and José Emigdio Pineda de León. 2006. Informe Anual 2005, Investigaciones en el área sur "C" del Parque Arqueológico Nacional Tak'alik Ab'aj. Archivo Parque Arqueológico Nacional Tak'alik Ab'aj, Ministerio de Cultura y Deportes, Instituto de Antropología e Historia, Dirección General del Patrimonio Cultural y Natural/IDAEH, El Asintal, Retalhuleu.

Schieber de Lavarreda, Christa and José Emigdio Pineda de León. 2009. Informe 2007-2008: Investigación arqueológica área habitacional, Sector El Campo, Finca San Margarita, parte Sureste del Grupo Sur, del Sitio Arqueológico Tak'alik Ab'aj. Archivo Parque Arqueológico Nacional Tak'alik Ab'aj, Ministerio de Cultura y Deportes, Instituto de Antropología e Historia, Dirección General del Patrimonio Cultural y Natural/IDAEH, El Asintal, Retalhuleu.

Schieber de Lavarreda, Christa, Miguel Orrego Corzo, Geremías Claudio and José Pineda. 2019a. Desde la media altura de las faldas del volcán viendo al mar: La urbe y el paisaje: In *El Mundo de Tak'alik Ab'aj*. Edited by Christa Schieber de Lavarreda, Parque Arqueológico Nacional Tak'alik Ab'aj, Ministerio de Cultura y Deportes, Dirección General del Patrimonio Cultural y Natural/IDAEH, El Asintal, Retalhuleu. pp. 118-137.

Schieber de Lavarreda, Christa, Oswaldo López and Omar Alvarado. 2019b. Política y Arte en piedra y jade: In *El Mundo de Tak'alik Ab'aj*. Edited by Christa Schieber de Lavarreda, Parque Arqueológico Nacional Tak'alik Ab'aj, Ministerio de Cultura y Deportes, Dirección General del Patrimonio Cultural y Natural/IDAEH, El Asintal, Retalhuleu. pp. 48-65.

Schieber de Lavarreda, Christa, Takeshi Inomata, Geremías Claudio, Juan Miguel Medina, Miguel Orrego Corzo, Kazuo Aoyama and Hiroo Nasu. 2019. Cronología nueva con Estratigrafía vieja en Tak'alik Ab'aj. In XXXII Simposio de Investigaciones Arqueológicas en Guatemala "Las Ciudades Prehispánicas y sus Límites", 2018. Edited by B. Arroyo, L. Méndez Salinas y G. Ajú Alvarez), Museo Nacional de Arqueología y Etnología. pp. 187-204.

Schieber de Lavarreda, Christa, Miguel Orrego Corzo, Nikolai Grube, Christian Prager, Elisabeth Wagner, Alejandro Garay Sven, Gronemayer Albert, Davletshin, David Mora-Marín Oswaldo Chinchilla and Federico Fahsen. 2021. La Estela 87 de Tak'alik Ab'aj: Resultado de un Estudio Colaborativo. In *Estudio de la Cultura Maya*, Publicación Semestral del Centro de Estudio Maya 2020. Universidad Nacional Autónoma de México.

Sharer, Robert J., Bruce A. Anderson, David W. Sedat, Payson D.

Sheets and Dana Anderson. 1978. *The Prehistory of Chalchuapa, El Salvador*. Vol. 1 Introduction, Surface Surveys, Excavations, Monuments and Special Deposits. Edited by Robert J. Sharer. University of Pennsylvania Press, Philadelphia, Pennsylvania

Shook, Edwin M. and Marion Popenoe de Hatch. 1999. Las tierras altas centrales: períodos Preclásico y Clásico. In *Historia General de Guatemala*, Tomo 1: época precolombina. Edited by M. Popenoe de Hatch, 289-318. Guatemala. Fondo para la Cultura y el Desarrollo.

Sullivan, Timothy D. 2015. Shifting Strategies of Political Authority in the Middle through Terminal Formative Polity of Chiapa de Corzo, Chiapas Mexico. In *Latin American Antiquity* 26 (4): 452-472

Sullivan, Timothy D. 2016. Processional Ceremonies in the Formative Period Chiapas Central Depression, Chiapas, Mexico. In *Processions in the Ancient Americas*. Edited by S.T. Evans, Occasional Papers in Anthropology (33): 27-51. Department of Anthropology, Penn State University

Thompson, J. Eric S. 1942. "Guatemala: Pacific Coast", *Yearbook*, Washington, Carnegie Institution of Washington, vol. 41, pp. 267-269.

Vela González, Claudia María. 2008 *Evaluación de la Enseñanza de la Arqueología en Centros Educativos Guatemaltecos*. Tesis de Licenciatura, Área de Arqueología, Universidad del Valle de Guatemala, Guatemala.

Willey, G. R. 1990. Excavations at Seibal, Department of Peten, Guatemala: General Summary and Conclusions. *Memoirs of the Peabody Museum of Archaeology and Ethnology*, Vol. 17, No. 4. Gordon R. Willey, series editor. Harvard University, Cambridge, MA

Wiley, G. R., A. L. Smith, G. Tourtellot III and I. Graham. 1975. Excavations at Seibal, Department of Peten, Guatemala: Introduction: The Site and Its Setting (Harvard Univ., Cambridge, MA, 1975).

Zetina, Mario E. 1994. La Sociedad de Abaj Takalik durante el Período 250-550 DC, como una Formación Económico Social Clasista Inicial. Las Máscaras Ceremoniales. Tesis de Licenciatura, Escuela de Historia. Universidad de San Carlos de Guatemala.



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8.d Official Website

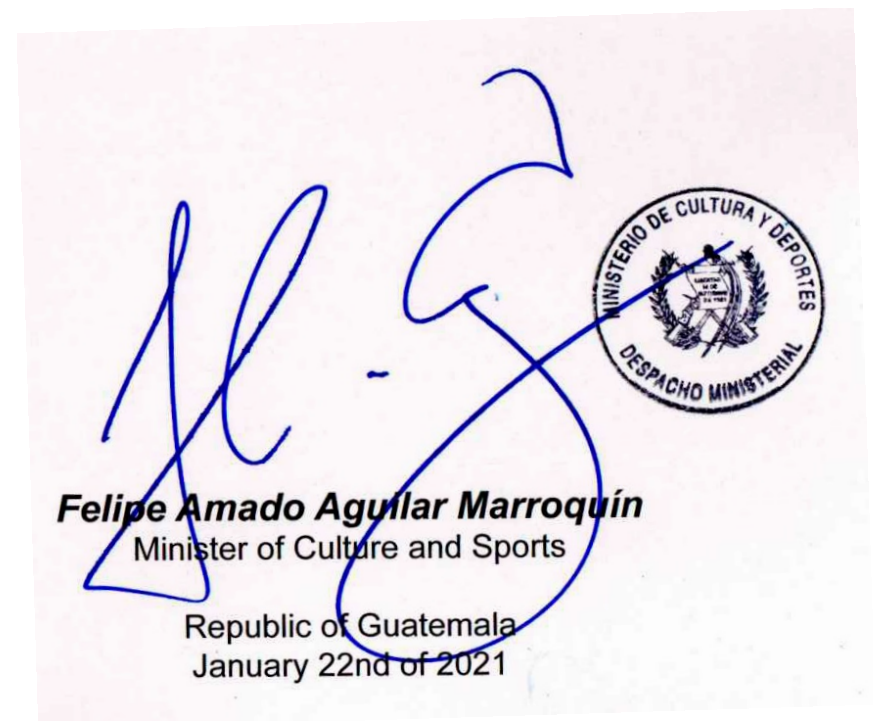
<http://mcd.gob.gt>



Signature on behalf
of the State Party

Signature on behalf of the State Party

This nomination dossier is hereby submitted to the World Heritage Committee, UNESCO, for application to be inscribed in the World Heritage List as:
National Archaeological Park Tak'alik Ab'aj





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1821-2021

