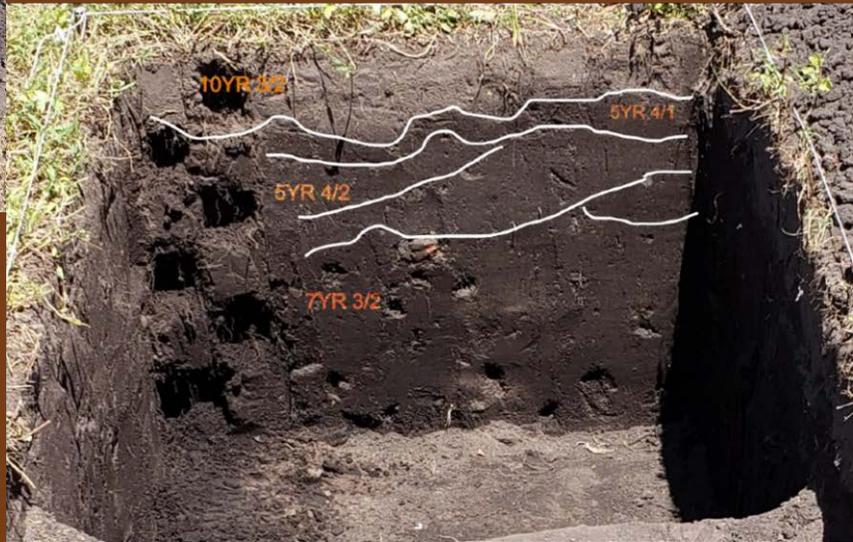


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Towards the Development of a Monitoring Protocol as a Tool for Assessing the Environmental Impacts on Archaeological Sites in Guyana

Guneshwari Preiya Methuram

Abstract

This paper examines how environmental impacts are defined, measured and generated in the context of archaeological sites and resources. Concepts related to archaeological resources management are further examined, to deduce how an interdisciplinary approach can lend to an effective management system and promote safe research and development techniques. Considering that there is a substantial growth in the scope for the protection and conservation of archaeological sites and materials predominantly involving academic and research-oriented uses, as well as natural resources extraction. The provides context in which the laws and policies of Guyana can engage and create network with the cultural resources and the natural resources sectors while offering recommendations for a three-step framework for a monitoring protocol in Guyana.

KEYWORDS: Guyana, heritage, archaeological conservation, monitoring

Cultural resource and heritage cannot be understated in the development of a country's identity. These are critical to the process of institutionalization, and the creation of a lineage and patrimonial structures. Cultural resource is defined as being any monument, building or groups of building, sites, which are of outstanding universal value from the point of view of history, art, or science according to United Nations Educational, Scientific, and Cultural Organization (1972). While there are limitations to the degree of protection of cultural resources at a national level, such as economic and legislative constraints and scale of resource present – Since 1972, cultural resource became an important variable in the assessment of global sustainable development. In response to the growing concern over world heritage protection globally, Guyana ratified the World Heritage Convention in 1977 and created a national response to the call by UNESCO (Sanz).

Cultural resources are however, challenged daily- chiefly by its exposure to biotic and anthropogenic agents and agencies. The inefficient monitoring and documentation of archaeological sites and artefacts also exemplifies this threat of destruction by traditional and non-traditional forces, which heighten the exposure to even more formidable phenomena of damage or destruction (UNESCO).

UNESCO's 1972 Convention on the Protection of the World Cultural and Natural Heritage, the National Trust of Guyana Act (1972), and other subsequent conservation oriented legislations such as the Environment Protection Act (1996) and the Protected Areas Act (2011), prescribed mandatory actions for the national conservation and protection efforts of environmental and cultural resources, and more specifically archaeological resources.

Archaeology and archaeological research contribute to the sustainability of a country's developmental system by offering a perspective on the socio- economic culture and the historical implications of its developmental projects (UNESCO). However, it only applies if there is a willingness to incorporate the

direct impact of archaeological research into the developmental processes of a country (Mapunda). Gould and Burtenshaw (2014) argued that archaeology and heritage resources have been expected to contribute to the economic and social development of a country, and that the demands within the practice of archaeology for this expectation are increasing. The issues of archaeological contribution, however, are contended by the vulnerability of the sites, which is often a specific reason for the investment or disinvestment in the heritage resources (Gould and Burtenshaw).

Environmental impacts, in this context, are the implied weakness of the heritage property and its susceptibility or exposure to the natural and man-made hazards. Hazards are defined as “a (natural) process or human activity that may cause loss of life, injury, or other health impacts, property damage, social and economic disruption or environmental degradation” (UNESCO). While the elimination of hazards and risks are impossible, there are technical measures, traditional practices, public experience, predictions, and mitigation measures that can reduce the extent and severity of economic, social and cultural impacts. While the occurrence of hazards and risk are inevitable and fairly predictable, there is a need to reduce the uncertainty of the outcomes and impacts by anticipating problems and solutions (UNISDR; Herzog). The lack of a concise monitoring protocol has led to a breakdown in archaeological site management. This has resulted in a gap between site identification and site administration. This research seeks to recommend opportunities for mitigation and establish allowances for averting major and minor changes to the state of archaeological sites in Guyana by developing a monitoring protocol as a tool for assessing archaeological sites in Guyana.

The global approach to archaeological site management has been able to offer management and protection at a national level using instruments developed along the lines of the World Heritage Convention 1972. However, despite the growing international interest and effort in cultural heritage resource management, Guyana is yet to achieve its optimal performance in this sector, as directed by UNESCO and ICOMOS.

The distinct regional identity of the Caribbean has been used to further the regional integration cause, allowing it to be used as a focal point for tourism and historical research. However, the Caribbean cultural resources as a collective is lacking, and therefore fails to outline an regional action plan to combat the degradation of natural and manmade sites of archaeological importance. The protection of CARICOM’s cultural resources assets is briefly mentioned in Article 55 2 (f) of the 2001 Revised Treaty of Chaguaramas. The Revised Treaty sets out the objective under Sustainable Tourism Development stating that “conservation of the natural and cultural resources of the Region through proper management...”. While it is understandable that the Treaty would have listed the protection under its tourism guidelines, the protection of cultural resources should be enshrined in a manner that provide for the protection of its inherent values.

In 1994, with Amendments in 1996, CARICOM developed a Regional Cultural Policy of the Caribbean Community. The policy aimed to provide guidelines for Member States in the development of their national cultural policy. It was recommended by the policy that adoption of actions aimed at preserving, analysing, and disseminating knowledge of the traditional, historical, and natural aspects of our culture. Section 4 (a) of the Caribbean Culture Policy deals with archaeological and Historical Sites and Artifacts. This section outlines briefly the actions of preserving and restoring the regional patrimony, and the plan for creating legislation to support such efforts. The policy provides for the repatriation of artifacts and other cultural property, and is key point that has been passed over by national legislations and policies. CARICOM as a tool for regional integration is focused on the collective nature and furtherance of its developmental agenda in economics and international relations, however, the international cultural resources conventions is likely to be received by CARICOM instead of a regional policy developed by the Caribbean for the Caribbean.

The National Trust Act (1972) is the overarching legal framework that makes provisions for the protection and management of archaeological sites and artefacts. However, due to its blanket nature in re-

lations to other aspects of culture and heritage and the emphasis on national monuments, it has failed to address the specific needs of archaeological sites and artefacts. Other subsequent Acts such as the Environmental Protection Act (2006) and the Protected Areas Act (2011) make provisions for the management of archaeological sites. However, these provisions are subjected to conditions relating to the mandate of each Act, which do not list archaeological management as the main concern of the Acts.

As a result, Guyana lacks a clear and concise mandatory monitoring protocol for archaeological sites (Daggers, 2012). A mandatory archaeological management protocol in compliance with the legislation would include, but not limited to, the identification and effective involvement of monitoring of archaeological sites in Guyana. While developmental projects permitting practices include environmental impact assessment, environmental management plan, land titling and demarcation often require an assessment of cultural resources and the environment that maybe disrupted by the project implementation, there is no uniform monitoring and evaluation guidelines that are of a national standard to reflect the state of the sites that are being assessed (Daggers, 2015).

While an Act of Parliament would be the ideal adjustment for archaeological resource management, this paper sought to propose a monitoring protocol for archaeological sites within the present legislative and policy framework as recommended by Daggers (2012). This is important to the uniformity and effectiveness of archaeological conservation, and the mitigation and adaptive measures to be applied. In this research, the conversation on cultural heritage resource management is incorporated into a much broader conversation on environmental and natural resource management.

Archaeological Management in Guyana

The National Trust of Guyana (NTG) is the agency mandated by law to implement and enforce, manage and control cultural resources on a national level. They are also expected to function at the regional level within the ten administrative regions. The NTG is the sole agency with the legal authority to enforce and prosecute infractions as it pertains to cultural resources as prescribed by the Act. The Act prescribed in Section 24:1 *“for the purpose of preserving the amenities of any national monument, the National Trust may, subject to the provision of this Section. Prepare and confirm a scheme (preservation scheme) for any area comprising or adjacent to the site of the monument, being an area to which, in the opinion of the National Trust it is necessary or expedient for that purpose that the scheme should apply”* (The National Trust Act). Further to this provision, the Act went on to describe circumstance under which the National Trust may apply a preservation scheme as set out in Section 24, including Section 24:2 (c) which states *“for prohibiting or restricting the felling of tress, quarrying and excavation within the controlled area”* (The National Trust Act), with control area meaning the demarcated zone for which the preservation scheme is applicable.

The NTG Act makes an important distinction between a monument and a national monument. The Act states that monuments include any building, structures, object or other works of man or of nature whether above or below the surface of the land or the floor of the sea within the territorial waters of Guyana and any site, cave or excavation identified by the NTG as having historic interest or national importance. Whereas a national monument means any monument declared to be a national monument that have been subjected to the requirement of Section 15 of the National Trust Act, which includes but not limited to publishing in the Gazette and one newspaper the declaring of a national monument.

At present, Guyana has only nine Gazetted National Monument; namely, Saint George’s Cathedral, Red House, State House, Umana Yana, The 1763 Monument, Non- Aligned Monument, Fort Zeelandia, Fort Nassau, and Fort Kyk-Over-Al, therefore the preservation scheme can only be enacted for the sites listed as the Act specifically states this in section 24:1, leaving approximately four hundred sites which have gone through the nomination process stipulated and have been deemed of national importance and historical interest, unprotected to this extent. Section 17 of the Act prescribes the penalties of disturb-

ances, interfering, undermines a national monument as punishable by a fine of one hundred and thirty thousand Guyana dollars. It is important to note that the NTG Act does not speak directly to archaeological resources and its management, but instead, extended the definition broadly enough to include archaeological resources and its scope for inclusion in its interpretation. This leaves room for its inclusion on the monument's registry, which is currently being updated.

Consequential to and by virtue of the Act, the National Trust has been given scope to institute and implement policies to govern cultural resources and their management to match best practices that are currently being researched and applied, both internationally and nationally. As a result, the National Trust has published a list of guidelines that are meant to inform the culture resource managers and the general public on best practices of rehabilitating, restoring, maintaining, recovering or removing places/artefacts of national importance and historic interest. Part 6 and 7 of the handbook of Guidelines for the Protection of Monuments and Sites, chance findings of artefacts and heritage items are addressed. In a brief discussion, instructions are given on how to handle archaeological finds that may be as a result of activities such as land clearing, excavation, and road construction (The National Trust of Guyana). However, guidelines on intentional research based excavation and findings are lacking in the document and as a standard operating procedure within the purview of the National Trust; as well as the monitoring of archaeological sites against environmental impacts.

Further, the National Trust does not have a permitting requirement for invasive research into archaeological sites, which are listed on the monument's registry or newly discovered sites. While routine conservation surveys and monitoring are carried out on heritage sites, the remote locations of archaeological sites are often factors that hinder this process on a frequent level. Most of the NTG's effort is therefore concentrated to sites within the greater Region 3, 4, and 10 areas and are of built/ architectural nature. This lack of frequent monitoring of archaeological sites leaves them vulnerable to the effects of environmental degradation and impacts, including interference by man.

The bulk of responsibility is placed on the Amerindian Research Unit, University of Guyana, with support Walter Roth Museum of Anthropology, the ARU assumed the responsibility of archaeological research and conservation in recent years and is seen as the technical focal point for matters of archaeology and archaeological resource management in Guyana and supports the mandates of the WRMA. The WRMA's main responsibilities include, documenting, recording and maintaining sites and artefacts of archaeological nature. The museum also houses the collection of artefacts that have been discovered during archaeological expeditions for public exhibition and maintains a national anthropological archive. In recent years the University of Guyana's Amerindian Research Unit (ARU), became the main research based institution as it relates to field school and other expeditions and collaboration with overseas-based universities and publication of research.

Unlike the NTG, the WRMA is not a semi-autonomous agency, and is not governed by an Act of Law. The WRMA is administered directly under the Department of Culture and a Director of Culture within the Ministry of Culture, Youth and Sport on a policy decision. A decision that may change depending on the state of affairs and political will of the government of the day. The WRMA shares a financial budget with other sister agencies, such as the African Heritage Museum and the Music School and, is often underfunded. The Director of Culture is the principal administrator of the museum and is assisted by technical staff such as anthropological officers and administrators. While the WRMA plays a fundamental role in awareness, collection management and research for matters relating to archaeology and anthropology, there is no legal instrument that holds the museum responsible for the work currently being undertaken by the museum.

The WRMA's shortcomings is a direct result of the lack of legal infrastructure which needed to create a unified system that will work as a supplemental to the National Trust Act of 1972. The legal instrument ought to cover areas of their operations such as a permitting system for excavation and invasive re-

search techniques and monitoring and evaluation of sites once they have been identified. This is the main concern of archaeological resource management as it relates to the current developmental climate of Guyana, and the adverse effects of environmental impacts. Among other areas identified to be covered under the legal instruments are curating and cataloguing of artefacts, laws and protocols for overseas based researchers, Illicit trade, and the exportation of findings.

The Environmental Protection Agency, by virtue of the Environmental Protection Act of 1996, administers the current system of permitting for research on the grounds that the Agency has full authority for the management, conservation, protection, and improvement of the environment, and further, the sustainable use of the natural resources (The Environmental Protection Act). The permitting system is a general application made to the EPA under Section 13 (environmental permit) of the Act, as a partial fulfilment of the requirement to be granted permission.

As sustainable developmental patterns are determined by the goals of the country, archaeological sites have been intrinsically linked to the landscape, making it a variable in the environmental permitting process. Under the permitting exercise, depending on the nature of the research, other sub-agency and ministerial authorization is required to obtain the permit. For example, a researcher would need the written consent of the Village Council and Toshias through the Ministry of Indigenous Peoples' Affairs if the prospective sites were within the Amerindian communities; or if the sites located within the protected areas, The Protected Areas Commission, by virtue of the Protected Areas Act of 2006 would have to be consulted.

Further, other agencies that have corresponding Acts such as the Guyana Forestry Commission, and Guyana Geology and Mines Commission would also have their own guidelines as prescribed in the Acts respectively. Only when these written authorizations are acquired, can the researcher be granted a research permit. The NTG are not completely divorced from this process, their involvement is a courtesy call by the EPA. The EPA Act was implemented as the oversight legal instrument for matters concerning the environment, and was never intended to be a replacement document of the National Trust Act or any other cultural resources management legislation. Instead, it assumed permitting authority because of the broad definition of the Act and the lack of other apt CRM legislation. Developmental projects that are seeking permits from the EPA are required by law to carry out environmental impact assessment and environmental management plans. Depending on the nature of the project, the EPA may ask project developers to include a social impact component to the assessments and plans. This system often requires an extensive survey of the environment, identification of impacts and proposed mitigation measures.

While this is a useful measure to identify and document sites of archaeological importance, the nature of the EPA and what their requirements are aimed at achieving, the identification of sensitive sites may be overlooked by the consultants and EPA officials that are not trained to identify and document sensitive archaeological sighting. Further, the NTG remains in theory, the agency responsible for archaeology as per the 1972 Act but does not possess the technical capacity to deal with archaeological matters hence matters in this regard are referred to the Amerindian Research Unit (ARU) for guidance.

An Integrated Approach to Archaeological Resources in Guyana

The current management system for cultural resources in Guyana has an abundance of room for improvement in its archaeological resources management, to include effectiveness and efficiency. To combat the competing laws, policies, and mandated agencies, the National Trust Act 1972 must be amended to include subsidiary consideration for archaeological resources. This will bring a clearer understanding of the role of the National Trust as it relates to its authority and mandate against other legislations such as the Environmental Protection Act and the Protected Areas Act. The ultimate goal of designing better

strategies to determine the integrity of an archaeological site, and assess the impacts aim at locating sites, developing intrasite sampling methods, and predicting the accuracy and reliability of analytical techniques.

Monitoring protocols have been deemed as an effective tool towards the purpose of archaeological site research and conservation (Ruppe) (Plog, Plog and Wait). The use of monitoring techniques relies on the stocktaking of the resources within the archaeological sector before target parameters are established. The theoretical framework established in the research is considerate of the target parameters for making early decisions about monitoring techniques.

Monitoring Protocol Design

A three-stage approach to the development of the monitoring protocol is identified, and once completed will be sufficient for making decisions about monitoring protocol techniques. The three stages are (1) Background Studies (2) Reconnaissance (3) Intensive Survey.

(a) Stage One - Background Studies

The background study serves to identify and assess the value of the information on the cultural material and the environment of the study area and to provide information on the current site conditions and needs. This is done by carrying out baseline studies, or gathering information for various sources. This includes previous historic or archaeological research, and establishing working relationships with key stakeholders such as community based residence or persons whom have previously researched the study area.

(b) Stage Two – Reconnaissance

Stage two of building a monitoring protocol involves initial field-based assessment of the physical environmental conditions of archaeological sites, as well as the type and content of the archaeological sites in an effort to weigh the most effective approach to implementing a survey technique taking into consideration the use of LiDAR technology where applicable. Accessibility to the site is fundamental in determining the most suitable approach. Once this is determined to be conducive to study, a systematic technique can be used to observe and record probabilities for a number of variables, including those that are not well known and cannot be corrected easily during this process a contract archaeologist or state archaeologist should be engaged at all times.

The establishment of environmental zones and transects can maximize the efficiency at which the reconnaissance is executed to maximize discovery probabilities. Archaeological sites with a high percentage of visibility of environmental impact, such as erosion in a particular transect or zone, can be readily recorded directly at this stage. Other factors that the reconnaissance stage aims at recording are:

Expansion of the range of site and artifact types and variability in obtrusiveness

Delineation of the frequency, degree, and distribution of common environmental impacts and artefacts

Specification of environmental impacts across environmental zones and transects

Concurrent study of environmental variability for ecological systems.

During the reconnaissance stage, artefact database is also built for the archaeological sites where one is lacking, or the database is updated for sites that have a database already. Archaeology protocol will be implemented at this stage to ensure that the site remains intact, and the integrity preserved while carrying out the data collection. Pilot forms are tested in the fields during the reconnaissance stage, and are revised, re-evaluated, and reconstructed, and tested again. Other variables are tested, such as accuracy of site location plot and the range of other destructive processes presently affecting the site. Archaeological materials are also observed and recorded.

The stage two process ends when there is:

- (a) Provisional identification of specific target parameters
- (b) Estimates of periphery target parameters
- (c) Survey strata based on visibility, accessibility, and ecological systems
- (d) Appropriate sampling and survey techniques
- (e) Recording and analysis forms (f) estimated work plan and cost.
- (c) Stage Three - Intensive Survey

Stage three is meant to be the final step in the framework towards the development of a monitoring protocol for archaeological sites in Guyana. It serves the purpose of identifying with precision and accuracy, the target parameter of the environmental conditions and impacts that exists within an identified archaeological site. This step aims to study the area-specific factors that influence the environmental systems based on biotic, topographic, visibility, and accessibility zones and transits. By extension, this step should inform the protocol design for that site type. Depending, a multi- survey strategy may be implemented depending on the archaeological artefacts found in the study area and site-specific consideration the dynamics of the site and the artefact content levels and method of implementation. Environmental, archaeological, ethno-historical, historic, and ethno-graphic data are generated amongst the three stages of the investigation. Stage three will however be used to test the information gathered towards the implementation of a monitoring protocol.

Conclusion

Archaeological resource management is a multi-faceted sector which functions to ensure that development of life is studied and preserved with precision and accuracy. There are many factors that influence the outcomes of the designs for the purpose of surveys, each weighing independently on the effectiveness of the design. While it is understood from this research that it may be an impossible task to find a single approach that will cater for all study areas, it is possible, however, to consider each factor theoretically, and assess its effects on the selection of the monitoring protocol.

The approach towards a monitoring protocol must therefore be viewed as a dynamic process, and by using the various channels identified in this research to test the archaeological and environmental characteristics to inform legislative and policy decisions in the future.

Monitoring of archaeological sites towards its conservation is not congenial and cannot be implemented using a blanket approach. However, the main aim of this research was to supply and emphasize information for the creation of a framework that would be helpful in making difficult decisions. Ultimate-

ly, changes have to be made by the legislative and policy systems that are available in Guyana, hopefully sooner than later.

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Archaeological Test Excavations at Dubulay—2019

Trevon Baird, Louisa B. Dagers and Mark G. Plew

Abstract

This note reports on test excavations conducted at the Dubulay Ranch in 2019 by students in the Denis Williams Archaeological Field School program. Excavations confirm earlier findings of ADE containing extensive ceramics.

KEYWORDS: Dubulay, Fort Nassau, Hitia, Waruni, ceramics

Introduction

In 2009, the University of Florida conducted a pilot assessment of the area around Dubulay ranch (Whitehead, Heckenberger and Simon 2010) located along the Berbice River in northeastern Guyana. This work built upon surveys conducted by Whitehead and Simon (1991) who described the numerous ridged fields of the Fort Nassau area. Additional fieldwork was undertaken in 2011 and 2014 (Shearn 2014) that sought explore the possibility of an early and developed agricultural landscape. Large scale excavations were conducted of several sites in the vicinity of the Dubulay Ranch near and at Hitia and Red Hill in Waruni. Fieldwork included excavation of five trenches cross-cutting a large mound and other site locations that documented Mid-Holocene evidence of what the investigators interpret as evidence of a settled domesticated landscape.

Trench 1 (25 m) and 4 (10 m) exposed cross-sections of the deepest portions of the mound, which was composed of dark terra preta or anthropogenic dark earth (ADE) sediments, extending to roughly 4 m below ground surface. Two 1 x 1 m units were excavated from the west wall of Trench 1 and excavated to a depth of 4 m with a soil auger with a second excavated to 2.6 m below surface. The stratigraphy of the mound was uniform across higher portions of the mound.

The northern portions of Trench 1 and throughout Trench 4, included deposits of micro-strata composed of very dark anthropogenic soils with lighter gray intervening layers, dating to 4840-4440 BP. The southern portions of Trench 1 are interpreted as representing repetitive and cooperative activities related to improving agricultural fertility by burning rubbish and weeds to generate charcoal instead of ash then spread over the area (Shearn et al. 2017:8-9). Trench 2 and 3 were 10 m long trenches positioned to the south and west of the river bluff mound be-between Locus 1 and 2. Loci 1, 2 and 3 extend to variable depths but generally do not extend beyond 140 cm below surface. Cultural remains in these areas were scant and thought to represent an open area or central plaza (Shearn et al 2017:9).



Figure 1. General location of Berbice area.

The large Dubulay mound (75 x 200m)—is a highly stratified mid-Holocene feature that contained substantial ADE. Dates range from 6270-4790 B.P. A large ceramic assemblage was recovered and contains some decorated ware. Excavations provide for the identification of a Dubali Complex that consists of two ceramic phases. Dubali 1 is associated with single coil applique, contrasting with Dubali II characterized by double coil applique s having complex crosshatch and fretwork designs. The latter designs called fretware by Williams (2003) have been found in Kaurikreek in Suriname (Rostain 2008, Versteeg 1978, 2003). In July 2019 the Denis William’s Archaeological Field School conducted limited test excavations on the north side of the large mound. The primary purpose was to assess the extent to which the stratigraphy of this portion of the mound resembled what has been previously reported by Shearn et al. (2017).

Field Tests

Two 1 x 2 m test pits were placed on a north-south axis some 18 m from a fence line near the top of the mound area and 10 m west of the ranch building situated on the ridgetop above the Berbice River. The units were placed 3 m apart along the baseline and excavated to depths of c. 80 cm below datum.



Figure 2. West Side of Mound.

Excavations documented extensive dark soils (ADE) to 60-70 cm where a reddish stratum was encountered. Sediment appears uniform though varied slightly in color. Most Munsell readings average near (5YR 2.5/2). The upper portion of the deposit is disturbed by agricultural activity as soy beans having been most recently cultivated on the area. In this regard, we conclude that this portion of the area is quite similar to what has been previously reported. Given the expected use of fertilizers and the porosity of the sediments we wonder if the reddish tint of soil at below 60 cm is not owing to this fact.



Figure 3. Test Excavation of Unit 2 at 30 cm below pit datum.

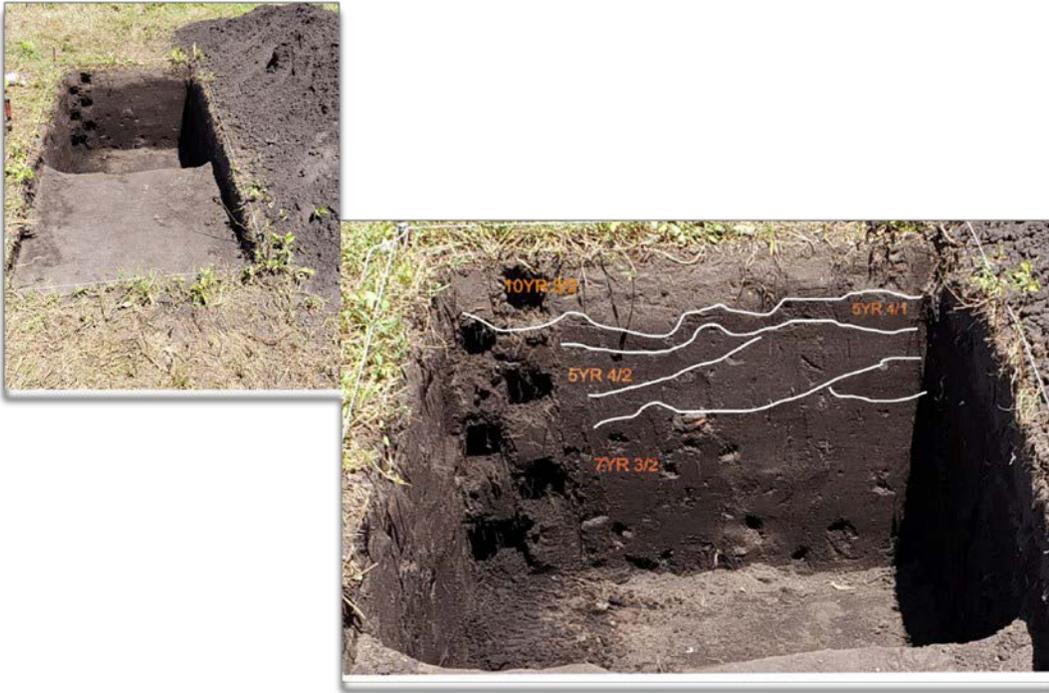


Figure 4. Unit 2 showing limited stratigraphic division.

Material Culture

Ceramics

The excavation recovered a total of 382 ceramic sherds collected as “grab samples” that did not select for specific sherd size. Most are small body sherds from undecorated vessels (see Table 1 and 2). The average width varies between 2 and 3 centimeters with wall thicknesses varying from 0.5-1.0. Some sherds appear to be burnished. Surface and interior wall color ranges from reddish-orange to black. Core color is often black to dark grey with sand and grog temper. Rim sherds include straight walls with rounded lips and excurvate rim forms. No decorated sherds were collected except for a single sherd having alternating incisions across the lip (see Figure 5). No fret ware was recovered. The pottery is identical to that reported previously. The bottle neck of a single vessel was recovered at 75-80 cm below surface in Unit 1 (see Figure 6).

Table 1. Frequency Distribution of Sherds, Unit 1.

Unit 1	Rim	Body	Base
0-20		8	
20-30	1		5
30-40	5		28
50-60	3	51	3
60-70	10	54	
70-80	3	64	3
Totals	22	177	39

Table 2. Frequency Distribution of Sherds, Unit 2.

Unit 2	Rim	Body	Base
0-20	2	4	5
20-40	4	44	8
40-50	8	66	6
Totals	14	114	19

**Figure 5. Ceramic Sherd with Lip Incisions.**



Figure 6. Bottle Neck Fragment.

Lithic Artifacts

Three lithic artifacts were recovered during the investigation. An axe head of unknown source material was found outside the mound area in front of the building located on the ridgetop (see Figure 6). The item measures L8 x W7 x T1 cm. A fragmentary celt measuring L4 x W3.5 x T1.8 cm. was recovered from Unit 1, stratigraphic level 60-70 cm below datum. It is made from what appears to be andesite (see Figure 7). The third artifact is an abrader measuring c. 5L x 3W x T1-1.5 cm (see Figure 8). The item which has a red stain on its surface was recovered at 50 cm below pit datum in Unit 2.



Figure 6. Axe Fragment from Unit 2.



Figure 7. Celt Fragment



Figure 8. Abrader

Discussion

Test excavations conducted by students in the Denis Williams Archeological Field School in 2019 confirmed the presence of dark earth containing extensive ceramic sherds on the east side of the large mound area at Dubulay. It also confirmed the presence of a reddish-stained stratum encountered at c. 50 cm below surface which may be associated the use of fertilizers that as previous investigators have noted is likely associated with recent agricultural activities. The material culture recovered during the limited 2019 test excavations included both pottery and lithic artifacts like those recovered in the previous investigations—save for the absence of what is clearly Mabaruma material or fret ware. No radio- carbon assessments have been made.

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Archaeological Investigations at Alaka Creek and Alaka Island (Wahana Island)

Mark G. Plew

Abstract

Alaka Creek and Alaka Island are Shell Mounds located near the Waini River and Warapoco Creek in Northwestern Guyana. Visited originally by Campbell and Roth and tested by Evans and Meggers, this paper reports on Denis Williams' investigations conducted in 1987. Two mounds at Alaka Creek date to the Alaka Phase while Alaka Island is a shell mound abandoned c. 4500 BP but subsequently re-occupied by later ceramic phase groups.

KEYWORDS: Alaka Creek, Waini River, Shell Mounds, Alaka Island, Alaka Phase, Mabaruma Plain

Introduction

Alaka Creek is a small tributary on the north bank of the Morebo River a short distance from the junction of the Waini River and Warapoco Creek in Northwestern Guyana. Nearby lies Alaka Island, a land area located around the mouth of Warapoco Creek. Located on the right bank of Alaka Creek are two shell middens. The area was visited in 1866 by Campbell under the direction of Brett (1868) and subsequently visited by Vincent Roth in 1920, who observed an intermixing of human remains with shell refuse (Evans and Meggers 1960:27). Evans and Meggers (1960:27) describe the middens being situated along a ridge extending to 3 meters in elevation and running along the ridge line from Alaka Creek to Warapoco Creek. The mounds are located on two knolls that overlap slightly. The smaller of the mounds measure 8 meters at its base, is 4.5 meters in height and lies on a slope some five meters above Alaka Creek. The second mound measures 12 meters in diameter and 6 meters in height and lies to the north of mound 1. A 1 x 2 meters cut was placed atop the larger of the two mounds and excavated to a depth of 2.6 meters. The strata are described as an "intermixture of shell, fine ash, iron concretions, fire-burnt gneiss fragments and gray-brown soil" that contained quartz spalls and limonite and hematite concretions. Areas of cemented shell and ash masses were common. Netrites and clams were present with extensive fish remains occurring in the upper levels of the excavation and throughout the upper 70 cm of the deposit (see Evans and Meggers 1960: 28-29).

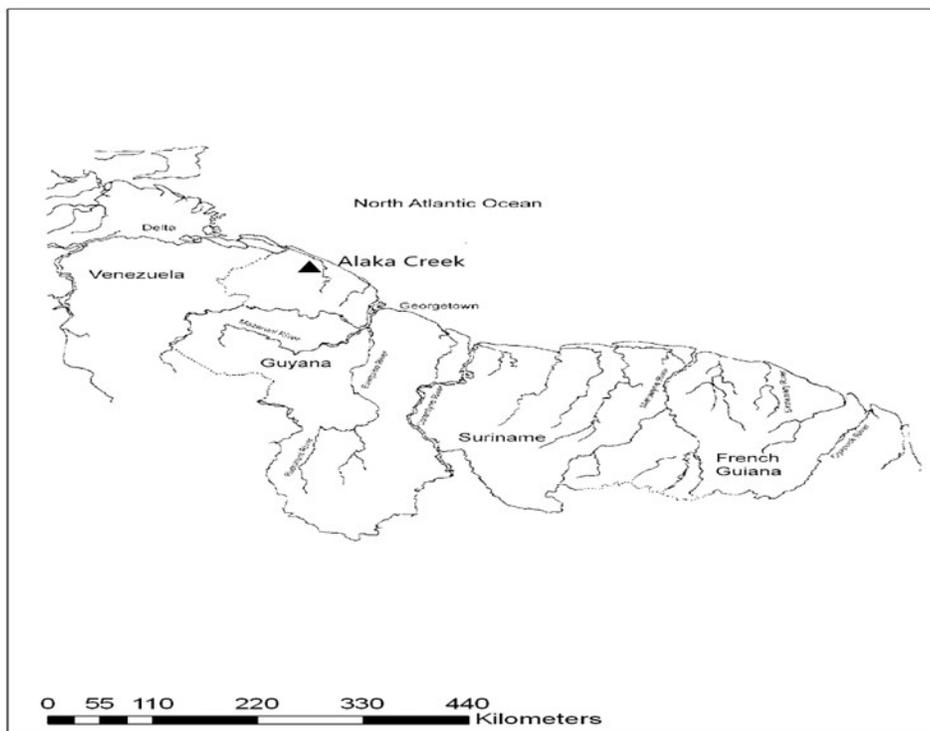


Figure 1. Map Showing General Location of Alaka Creek and Alaka (Wahana) Island

In close proximity to the Alaka Creek shell mounds is, as noted, Alaka Island. It is a location some meters inward from the Waini River around the mouth of Warapoco Creek. On the left back of the creek is an elevated area with large granite outcrops—the largest rising to 5 meters above an adjacent swamp and extending over an area of 30 x 25 meters. A 1 x 2 meters cut excavated in 25-cm arbitrary levels was placed c. 15 meters south of the large boulder. In addition, eight probes explored the limits of the greater site area though it is not clear how these were conducted. The cultural deposit ranged between 2.5 and 1.2 meters in depth. The upper 50 cm of the deposit consisted of rich black loam (ADE) containing sparse oyster remains and pottery sherds. At 65 cm below surface, sediment becomes somewhat greyer and contained highly fragmented human remains (lower mandible, patella and distal femur fragment). The stratum is also associated with an increase in the numbers of stripped snails (netrites). Below one meter and extending to 2.5 meters below surface, sediments become light tan in color—a condition extending to the sterile base of the deposit. Oyster fragments continue to be common, with crab remains appearing more common below the 1.5-meters level. Unidentified pottery sherds were noted in level one with fired clay objects appearing in levels 4 and 6 (see Evans and Meggers 1960:29-31).

In July and August, 1993, Denis Williams conducted additional testing of both Alaka Creek and Alaka Island, which he refers to as Wahana Island. This paper, based on his field notes, reports the findings of the 1993 investigations.

Alaka Creek Excavations

Williams (n.d.) excavated three 1 x 2 meters cuts at Alaka Creek on a NW/SE baseline that placed the units in relation to large boulder noted by Evans and Meggers (1960: 30). Testing was conducted using arbitrary 25-cm levels from surface to a depth of 2.25 meters. The deposits were not screened.

The deposit consists of a mixture of shell, fish, mammal and human remains. Zebra netrites and crab remains predominate with an occasional presence of *Jamacia Lucine*. No sediment is present. The most common features are concentrations of “crab shell dust” and refuse and charcoal lenses—though these are not uniform throughout the deposit. Two un-carbonized seeds—one a plum seed was recovered from Level 4 (75-100 cm). A bright ochre color characterizes a compacted crab shell deposit observed in Level 5 (100-125 cm). In general, the most notable stratigraphic change includes a marked increase in crab remains beyond the 100 cm bpd (below pit datum). In contrast to Williams (n.d.) Evans and Meggers (1960: 29-30) reported considerable sediment that varied in color and burned ash. They noted a color change to tan and orange below 2 meters which may be the color change observed by Williams.

Material Culture

Alaka Creek possesses both pre-ceramic and ceramic lenses. Level 3 (75-100 cm) contained a single Aruka incised rim sherd. All other material items are Alaka Phase artifacts. Level 1 (0-25 cm) produced a trapezoid-shaped adze of andesite measuring 6 cm in diameter. A piece of andesite measuring 10 cm in diameter exhibits grinding facets and incisions that William’s (n.d.a) refers to as a petroglyph scribe. Level 2 (25-50 cm) contained a large ground stone adz of andesite (?) measuring 10 cm in diameter and a second smaller (6 cm in diameter) trapezoidal-shaped adz. Level 4 (75-100 cm) produced the “butt” end of a ground stone adz measuring 9 cm in diameter and made from andesite. A smaller trapezoidal adz of andesite measures 7.5 cm in diameter. Utilized flakes of andesite were recovered from Level 5 (100-125 cm) and from Level 8 (175-200 cm). A trapezoidal shaped end of an adz of andesite was recovered and measures 22.0 cm in diameter.

Faunal Remains

Although netrite remains were the most common constituent of the deposit, fish remains were recovered from the upper five levels of the excavation. Most specimens are unidentified though some are described as large as a large catfish and other estuarine species suggesting smaller fishes. Crab remains are also common throughout the deposit. Isolated remains of *Jamaica lucine* were noted in all levels. The remains of a turtle were recovered from Level 1

Human Remains

Human remains were present in all levels. The remains include cranial fragments and tibia, scapular and rib fragments. The remains are highly fragmented and dispersed. Exact proveniences were not established. The remains of an infant were found in Level 5.

Alaka Island (Wahana Island)

Cut 1

Williams (n.d.a) excavations at Alaka Island (Wahana Island) included four cuts or test units. Cut 1 was a 2 x 2-meter unit excavated in arbitrary 20-cm levels to a depth of 140 cm below pit datum (bpd). Cut 1 was located around a large granite boulder (presumably the boulder reported by Evans and Meggers 1960:29) on an E-W baseline. The granite outcrop or boulder creates near its end a habitable cave that contained pottery sherds. Level 1 (0-20 cm) is a dark humus level containing mangrove oysters and fish remains. Level 2 (20-40 cm) is like Level 1, a very black humus with oyster and crab remains. A concentration of crab refuse marks an unidentified feature. Level 3 (40-60 cm) was characterized by a heavy deposit of heavily cemented crab remains. A charcoal sample was taken. Level 4 (60-80 cm) saw a

a change in sediment color to a light tan that Williams (n.d.) interpreted as resulting from the infusion of heavy crab remains. Charcoal was present with sediments near the 80-cm bpd level being a red ochre color. Mangrove oysters and crabs dominate. A fire hearth consisting of an arrangement of large cobbles is associated with a pile of pebbles (boiling stones) and an adjacent burned area. Below 80 cm, shell refuse is highly compacted. Level 6 (80-100 cm) produced a radiocarbon date of 4570±80 BP (Beta 69257). Bedrock was exposed at 140 cm bpd.

Cut 2 and Cut 3 (Cave)

Cut 2 and 3 consisted of the excavation of two 1 x 2 meter units within the area of the cave deposit. Arbitrary 20-cm levels were employed. Uppermost level was a tannish-brown loam that contained no food refuse. Level 2 (20-40 cm) in both units of Cut 2 and 3 saw a gradual change to a light tan and heavily compacted clay. Sterile sediment was encountered at 40 cm bpd. The cuts were flooded over- night and excavation abandoned.

Cut 4

Cut 4 was a 1 x 2 meters unit excavated in 20-cm levels. As with other levels excavated at Alaka Island deposits were not screened. The exact location of the cut is not known. The upper 80 cm of the deposit are found located within a dark humus that contains numerous bits of small charcoal pieces, extensive netrite remains and oysters though relatively underrepresented relative to crab refuse. An abrupt soil change occurred in Level 5 where dark humus give way to tan-colored soil and a deposit of cemented crab shells. Levels 7 through 8 (120-180 cm) remained unchanged, with areas of compacted crab refuse.

radiocarbon date of 5290 ± 90 BP (Beta 70049) was obtained for Level 8 (140-165 cm). Level 9 contains remains of large fish and numerous quantities of netrites. A single charred palm nut was recovered. Levels 10-12 saw increased use of crab with occasional oyster remains. In contrast, Levels 13-15 consist largely of compacted crab remains with some oyster remains. These levels contain no netrites. Level 15 (330-355cm) is again characterized by dark humus overlying bedrock. Two charred palm nuts were recovered. This level produced a radiocarbon date of 5350 ± 110 BP (Beta70048).

Material Culture

Test excavations at Alaka Island produced both ceramic and lithic artifacts. Sherds of Sand Creek Plain and Mabaruma Plain occur in the upper 60 cm of the deposit (see Table 1). In contrast, lithic artifacts consisting mainly of trapezoidal-shaped ground stone axes and adzes are present through Level 5 (80-100 cm). Other functional tools include a single quartz point measuring 4 cm in diameter, two scrapers and a quartz core. Andesite flakes were common throughout the deposit but were not counted consistently. This was also the case with pebbles that Williams (n.d.a) has considered boiling stones. No size ranges are given for flakes and pebbles.

Table 1. Ceramic Artifacts from Cut 1, Alaka Island

Level	Sand Creek Plain	Mabaruma Plain
0-20	12	
20-40	1	20
40-60		6
Totals	13	26

Table 2. Lithic Artifact from Cut 1, Alaka Island

Level	Axes	Adzes	Points	Scrapers	Cores	Flakes
0-20	1	2			1	2
20-40	1	1				
40-60		1	1	1		+
60-80		1				+
80-100		1				+
100-120						2
120-140				1		
Totals	2	6	1	2	1	4

+ = present, no count

Faunal Remains

Although netrites, crab and oyster remains are common throughout the deposit as they constitute the greater composition of the site, large mammal remains, including the mandible of a bush hog, were recovered. Most notable is the presence of large fish remains from all levels of the deposit.

Human Remains

Fragmentary human remains were found in Level 3 (40-60 cm) consisting of a human cranium with open sutures. No detail is given as to the degree of closure.

Discussion

Alaka Creek and Alaka (Wahana) Island lie off the Waini River near Warapoca Creek and are shell middens originally investigated by Evans and Meggers (1960:28-31). Accumulations netrite remains intermixed with crab and occasional oyster remains characterize the midden areas. While Alaka Creek consists of two typical conical flat-topped mounds, Alaka Island is like Kabakburi—a midden area lying upon an earthen slope. Based upon material culture recovered and, or noted, it may be assumed that the mounds of Alaka Creek date to the time frame of other mounds that include the older Guyanese shell middens (Williams 2004, Basso and Plew 2017, Plew and Dagers 2016) though probably are not as old as Piraka and Siriki which have produced radiocarbon dates slightly greater than 7,000 years BP (Plew and Dagers 2016). Alaka Island produced radiocarbon dates ranging between 4570 BP and 5350 BP. Although Williams (2003) argued for continuous use of the mounds over lengthy periods of time, it appears likely that Alaka Creek and Alaka Island, like other mounds, were utilized for shorter and most probably only periodic intervals. These periodic visits were almost certainly seasonal as appears to be the case with Waramuri where crab—a seasonally available resource—is most common.

Sediments at both Alaka Creek and Alaka Island are characterized by dark soil that extends deeply into their respective deposits and is then replaced by lighter tan sediments. Cultural features at both site areas are few and consist largely of burned and compacted shell refuse similar to those at Kabakaburi (Plew, Willson and Dagers 2012) and Siriki (Plew, Willson and Dagers 2010, Plew and Dagers 2016) and Waramuri (Plew 2018). It appears that the numerous burned areas characterized by red staining that is common in all of the shell mound deposits (Plew 2005). These areas are typically amorphous, covering 30-40 cm areas. Williams (2003) considers these to represent cooking and heating areas.

Stones, referred to as manuports by Williams (n.d.b.) and pebbles are common at Alaka Creek and Alaka Island. The larger stones may have been used to surround fire hearths (Williams n.d.c.). There is no evidence of living surfaces or structures, unlike Siriki and Wyva creek where there is some evidence of sediments having been brought onto the mound to create living floors.

The material culture of Alaka Creek is characteristic of typical pre-ceramic Alaka Phase assemblages (Evans and Meggers 1960, see also Plew, 2005, Plew, Pereira and Simon 2007) though a single Aruka Plain sherd was collected from Level 3 of the deposit and may be intrusive. Seven lithic artifacts recovered from the excavations consist largely of adz-like tools. Flakes are found throughout the deposit though there are no level counts. These are presumed to be general purpose tools. Some classic Alaka Phase items are absent and include what Evans and Meggers (1960) refer to as picks. Overall, the artifactual assemblage is similar in quantity and richness of artifacts to assemblages from Kabakaburi, Siriki and Wyva Creek. The cultural assemblage from Alaka Island consists of both lithic and ceramic remains. The total artifact inventory includes 16 lithic artifacts of which axes (n=2) and adzes (n=6). Other items include a point, core, two scrapers and two flakes. The upper 60 cm of Cut 1 produced 13 Sand Creek Plain and 26 Mabaruma Plain sherds. The ceramic horizon indicates that Alaka Island saw a later period occupation of the site. A radiocarbon date of 4570± 80 BP for the 80-100-cm level suggests that the Alaka Phase use of the site ended sometime before its re-use by later ceramic tradition occupants.

Excavations at Alaka Creek and Alaka Island document a primary dietary use of netrites and crabs though small mammalian remains and fish occur. It is noteworthy that what are described as large fish remains are found throughout the deposits. Large fish remains have been noted at Barabina (Williams 1981), Kabakaburi (Plew, Pereira, and Simon 2007), Siriki (Plew and Dagers 2016) at Waramuri. Most of the species are unidentified, with the exception of gillbacker remains from Piraka and what appears as catfish from Siriki. Williams (n.d.a.) reports gillbacker from Koriabo. It seems likely that fish are a primary element of subsistence –most likely more important than shellfish (Plew and Dagers, 2016). Only a single level -Level 1, Cut 1 contains evidence of what appear to be a limited number of small-sized mammals—a pattern unlike Kabakaburi and Siriki mounds where a number of mammals have been noted (Plew, Willson and Simon 2007, Plew, Willson and Dagers 2012).

Alaka Creek and Alaka Island like other mounds saw the recovery of human remains. Human remains were present in all levels at Alaka Creek. The remains are highly fragmented and dispersed. The remains of an infant were found in Level 5. Testing at Alaka Island recovered highly fragmented cranial remains exhibiting open sutures. Gender and age observations were not possible. Williams (n.d.b) reports no evidence of special treatment of such remains.

In summary, Alaka Creek and Alaka Island date to a time frame consistent with the earlier Holocene age shell mounds of Northwestern Guyana. Variance in the presence of increased quantities of netrites vs. crab remains suggests that mounds were probably occupied on a seasonal basis. Alaka Island represents a setting in which an Alaka Phase use of a mound ended some 4500 years ago with subsequent use of the location by Mabaruma Phase peoples.

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Formal Education and Indigenize Curriculum in Guyana: The experience of the Wapichan People of Maruranau Village

Felician Medino Abraham

Abstract

This study presents an account of formal education to the Wapichan for eightyone years in Maruranau Village South Rupununi, since its introduction in the 1940s up to present, and also highlights the Indigenous peoples initiative of the current pilot Quality Bilingual Education Programme (QBEP) that was initiated in 2018 in Maruranau nursery school and in two other schools in Wapichan communities. The research reflects that although formal education continues to transform some aspects of the Wapichan language and culture over the years, they are resilient in keeping most alive with grassroots projects in the community by organizing and drawing upon their worldview of education and other sociocultural resources in villages. They are collaborating with the ministry of education in developing an indigenize curriculum for nursery level, using the local language and Indigenous epistemology to teach the children in the pilot schools with the hope of addressing the challenges of meritocratic learning while simultaneously teachers are being equipped with the necessary literate skills and empowerment to teach the educands in the new pedagogical paradigm from the learning provided by the bilingual programme and the Ministry of Education.

KEYWORDS: Wapichan; Bilingual Education; Indigenize curriculum

Introduction

The right of Indigenous People to control their own education as recognized in Article 14 of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP, 2007). With several Indigenous languages and culture currently under threat, Indigenous communities in Guyana are becoming more involved in language preservation efforts of the Lokono, Akawaio, Warau, Patamona, Arekuna, Wai Wai, Macushi, Wapichan and Carib Peoples. The Wapichan village of Maruranau is one example of an Indigenous community in Guyana that is pursuing efforts along this line which simultaneously is pushing to indigenize the nursery school curriculum through the "Quality Bilingual Education Programme (QBEP)"; a pilot project that introduces bi-lingual education at the nursery school level in three nursery schools in South Rupununi in 2018. This project provided an opportunity to conduct a small ethnographic study on the socio-historical context of formal schooling among the Wapichan. This paper highlights some of the findings from the ethnographic research and documents some key perspectives and issues that emerged concerning the link between formal schooling and the Wapichan language and culture in Maruranau village.

The impetus for conducting ethnographic research as part of the bi-lingual project in Maruranau stemmed from my earlier undergraduate research (2008- 2012) and post graduate research (2015-2017) work on issues that were pertinent to formal education among the Wapichan communities in the South Savannahs of Guyana. Later, and while serving as a voluntary teacher for the Catholic Church in this geographic area, I became involved in the QBEP as a resource person. I recognized that since the

QBEP was being introduced in three nursery schools that the project could benefit from an investigation of issues related to formal schooling and its effect on the Wapichan language and culture.

Over a period of six months, I conducted interviews with key community members who had either facilitated or continue to play a role in the delivery of formal education in the village of Maruranau there are: village administrators, parents and past and current students. The interviews followed a semi-structured format with a few open-ended lead questions. Some interviews were conducted with one or more participants but there were four small focus groups interviews: (i) a group of 3 elders, (ii) a group of 6 parents, (iii) a group of 4 teachers, (iiii) a group of 4 fifteen year old students. The groups of parents, teachers and one elder asked not to be identified so fictitious names were used as preservation of their integrity. Since I am not a Wapichan and I do not speak the language, I conducted the interviews in English. All interviews were recorded and transcribed for data analysis. Additionally, during my re- search I found that there was a lack of data on the emergence of formal education process among the Wapichan. Consequently, and where possible I was able to use social media and the internet to contact former teachers, students and senior education officials who were either directly involved in or were witness to the formal education process among the Wapichan people. I have summarized the recollections, stories and comments from three individuals who engaged with me through this data gathering strategy. Secondary sources and church and government documents were useful in helping me to delineate the evolution of the formal education system among the Wapichan.

The Catholic Church and Formal Education

The Catholic Church

In 1909 the Catholic Church was established at Ariwa present day Saint Ignatius in Central Rupununi, subsequently from this base the Jesuit missionaries took approximately thirty-one years engaged in pioneering evangelization work to the Wapichan Indigenous people converting them to christianity and establishing chapels in villages (Bridges,1985a). The second phase of the churches' mission in constituting schools to the people of South Rupununi began in the 1940s, similar establishments also occurred to the Wapichan, and Macushi people in the Rupununi Region Nine; and to the Patamona of North Pakaraimas Region Eight. The constitution of schools by the Catholic Church in these two remote interior regions of predominantly indigenous communities in Guyana during that period, received staffing from teachers of the Arawak community of Santa Rosa, Moruca (McCaffrey 1972-1986).¹ Those teachers that went to the Rupununi worked very hard under precarious conditions including language barrier, assisted in developing education to the Indigenous people of the Rupununi and Pakaraimas. They performed well even though they did not possess sufficient teacher training to execute that function. The Arawaks educators had great enthusiasm and generosity to work among their Indigenous brothers to develop the catholic mission together with the missionary priests (Justin, 1998; Bridges, 1988b).

As teachers to the Wapichan in the classrooms, the Arawak teachers contributed to transforming them into "schooled Christians" from the method of teaching four R's: Reading, "Riting", "Rithmatic" and Religion", where the education that time produced

1. This Jesuit priest before dying between the years 1972-1986 documented the activities of the mission in particular the education to the Rupununi people. Source: Letters and Notices: Vol.87. No.390. Made and Printed in Britain. Burleigh Press, LTD, Bristol. BS2 0QL. Easter 1986.

brilliant Indigenous children, while the missionaries served as administrators of the educative institutions and pastors to the people. Additionally, although the Jesuits had limited direct contact with the Rupununi Indigenous people in the delivery of lessons in the classrooms, the intention was to “educate” them by employing another Indigenous group who were already converted to Christianity².

An important aspect learnt during informal conversations with some Wapichan elders about church education offered to the Wapichan who were mostly employed at the ranches owned by with the Melvilles, is that initially the ranchers were sceptical of the church's project to provide education to them. The Wapichan elders narrated that their bosses saw formal schooling to them not a wise thing because academic education enables them to understand the social reality in which they were inserted in and hence made them less yielding to work as the cowboys on the ranches. However, over time the church and the ranchers resolved their differences because both had common interests to the Wapichan for them to be schooled formally by the church and state, and simultaneously contribute in developing ranching enterprise in South Rupununi; activities that shaped their sociocultural reality in the advent of Guyana's independence in which some elements of their Indigenous culture were transformed.

Maruranau Village

The establishment of Maruranau community began in 1922 by the Jesuit priest Cary Elwes when he arrived at an area called *Sawaraminiznau* located at the bush mouth, the first settlement of the Wapichan where missionary began his evangelization to them (Amerindian Lands Commission, 1969). Maruranau in English means giant Armadillo named after the animal that first inhabited the area. The villagers first language is Wapichan and second is English. Some residents speak Taruma a remnant of another indigenous language that is alive and some Portugues. The community is comprised of 170 families, with age ranges from 16 and 40 are youths and adults; and children from age 3 to 16 attend nursery and primary schools numbering 260 from a population of 830 residents.

Geographically the community is located 157 kilometers or 98 miles from Lethem, and it is concentrated approximately 2 km from the bush mouth as the villagers call it where the forest ends and the savannah begins. Additionally, the village is situated in the middle of two other communities at the East of South Rupununi towards the Kwitaro River; Awarawanau 13.3 km in the South and to the North is Shea, located 7.65 km away from Maruranau.

The village is part of the South Rupununi District Council (S.R.D.C), a legal body comprised of toshaos in the subdistrict that take initiatives to preserve the culture and traditions as well as develop the area rich in biodiversity in collaboration with government and international entities (David B et al.2006). The community has its titled land which is approximately 282614,323 square kilometres or 109,118 square miles. The acquiring of its land title was done through state guarantee after a few years of constant lobby by Wapichan leaders to the government for land extension which in the end was successful, but was allotted with small portions to them (Ibid.,2006).

²In 1817 as a result of Simon Bolivar's revolution for the independence of Venezuela from Spain, there was a group of Spanish-Arawak s who escaped the war because they supported the Capuchin missionaries against Bolivar and reached the territory of British Guiana. When they arrived in Mariaba modern day “Santa Rosa” the British government reluctantly gave them asylum seemingly because they were already converted to Christianity and were considered “civilized”. Subsequently, the Arawaks established the first catholic community in British colony that time. Later, in the 1940s, some of these Spanish Arawaks as the British referred to them were recruited to assist in developing the Rupununi mission along with the Jesuit missionaries, where they served as the first teachers to the Wapichan, Macushi and Patamona peoples. (Menezes, 1977), (Bridges, 1988b), (Pierre, 1994).

Educationally, the community is known for promoting the language and culture where the Wapichan language project was established in 1995 to raise awareness and revitalize the local language in the community and other Wapichan villages. Additionally, according to (ARU,1992) in 1980s the primary school at Maruranau was part of a literacy pilot project that produced elementary-level books for teaching children to read in five schools, and in 1998 the institution was also part of another pilot initiative for the Escuela Nueva education project (Van Dongen, 2002). Ultimately, since formal education was introduced in the community in 1947, there has been a significant number of trained professionals: teachers, health workers, medexes, nurses, electricians and of recent villager who possess a doctorate in linguistic study from a foreign university.

Wapichan and Formal Education: Issues and Testimonies

Testimonials from elders

The first school established by the Catholic Church in Maruranau in 1947 encouraged other Wapichan who remained behind in the forest to later come out and dwell in the savannah to attend school. The institution's first headmaster was Mr. Lawrence La Cruz from Moruca Northwest District; the first school was located at the eastern part of the village where presently there is a cluster of mango trees. The first batch of students registered at the institution was 66: 33 males and 33 females. From this number some attended from the neighbouring villages of Shea in the North and Awarawanau located to the South of Maruranau. That learning institution that time attended children from the age of 9 to 12 years old, and they used the slate as a book to write lessons. The Wapichan built the school with collective effort and was supervised by the village leaders and the priest. Their collective work constructing the building reflected ownership and identification with the school since they foresaw the importance of education and the benefit of it for their childrens' future.

Question 2. What did you remember of the first school in Maruranau?

Gena Gomes 76 years, one of the first students of Maruranau primary school; she recalls the memories of the first school:

I remember that some Wapichan people used to live in the bush mouth, those who left behind to live close to their farms. Then later they moved out from there to live near the school and church. They came one family at a time, and after sometimes the numbers began to increase in the community. The first school was founded in 1947. I remember I entered school at 9 years old here in Maruranau. But there were other children older than me who were 12 years old and so on. I remember using the slate to write the lessons on at school and also when the people built the building with self-help while the local leaders and the priest supervised the work. The men cut the wood from the forest and brought the Itae leaves from the savannah for the roof of the school. Every day I use to see people working hard to build it and after some time they finished the construction. I felt happy when it was finished because it was our school. I remember it had Wapichan children from Shea and Awarawanau the neighbouring villages, who attended the school in Maruranau (Gena Gomes, June, 2019).

The Arawaks from Santa Rosa were Gena's teachers and the narrator recalls that she thought of them as more "civilized" than Wapichan. She remembers them being rigid in teaching a version of English to Wapichan children without realizing that they spoke not the best of the "Queens English", while they discouraged Wapichan not to speak their mother tongue at school. However, Gena related that they had a lot of respect for the teachers. She further recalls when classes ended in the afternoons the children returned home and spoke in their local language. Gena pointed out that the discouragement from the teachers to speak the local language at school did not terminate it because the Wapichan were interested in school and learning. The interlocutor further mentions that that time children had greater interest in learning at school and credited it to the church and home; where teachers and parents cultivated the importance of attending school. Gena believes that the rigid school education to Wapichan resulted from the discipline received at school and homes which made them who they are today, wise disciplined and hardworking people.

Question 3. Who were the teachers at the school that time?

That time I remember it was common to see Arawak people coming to work as teachers in the school here in Maruranau. Seeing this I usually thought to myself, that Arawak were 'more civilized' people than we Wapichan. They were strict at school. They beat us when we spoke our language at school. But it was only at school that the language was forbidden because at home and in the community it was strongly spoken. However, we had a lot of respect for the teachers. I remember that there were no Wapichan who could speak and write in English. It is in school where we learnt English, Mathematics and Latin, especially when we sang hymns at catechism classes during lessons. We also learnt moral values and were serious about attending to school. Something our parents at home encouraged because it was important for us to learn new things from school and the teachers. We were also obliged by our parents to attend church every Sun- day. This seriousness of training and education prepared most of us to be disciplined and hard workers. It is this education that we taught our children to be hardworking people (Gena Gomes, June, 2019).

Arawak elders like Jean Rodrigues and Joseph Atkinson were children during the 1940s when their parents and other relatives worked with the church in developing education to the people of South Rupununi. They remembered the initial education approach to Wapichan in other villages like Sawariwau and Archiwib, where catechetical classes were held orally with small groups of children and most times under a tree in the premises of the newly built church buildings. Subsequently, after a few years as the school buildings were completed the small groups of children from the catechism classes began to relocate to new the learning environments. Additionally, according to the Arawak narrators *"the first Arawak teachers who worked in the Rupununi encountered difficulties adapting to the new environment and people, besides language barrier and other challenges that were different to their homeland Moruca*. In addition to Jean and Mr Atkinson's memories of early schooling to the Wapichan, Mr Ian Melville a former regional education officer of Region Nine recalled that prior to the introduction of schools in the 1940s by the church in the South Rupununi, there is no documentation of Wapichan being exposed to any formal schooling, and like the Arawak elders, Mr. Melville recalled that the school education to Wapichan in the 1940s was based on the four R's: Reading, "Riting", "Rithmetic" and Religion".

This integration process of constituting formal schooling to the Wapichan, enabled them to undergo a transformation of their culture and language which impacted the community of Maruranau: according to this author who analysed the impact of school education to Indigenous peoples in Latin America in colonial times highlighted:

In this paradigm, what is intended is ultimately to educate the Indian so that he is no longer an Indian: the goal of the pedagogical work is to make him abdicate his language, his beliefs and his cultural patterns; to incorporate and assimilate the values and behaviours, including the linguistic aspect to national society (Maher, 2006, p.20).

Acquiring formal education for opportunity and upward mobility was an option of the Wapichan who invested heavily in this institution that is a colonizer, education empowered them to be protagonists for change as is stated "the dominated always have a certain capacity, sometimes very significant ones to exert some kind of influence on the way projects unfold" (Ortner (2006, p. 64). In this context, the following narrative relates an example of a Wapichan student who earlier had the challenging experience of learning in a foreign language. He subsequently became a teacher and assisted Indigenous children at the school to learn using their mother tongue by explaining parts of the lessons to them when they found it difficult to understand the concepts in English. In other words, this teacher used his local language as a tool, to help the children learn besides other teaching methods such as: music and singing in both Wapichan and English which facilitated the learning childrens' as narrated by the former teacher Leo Gomes, Gena's husband.

Question 4. What was your experience as a Wapichan teacher at the school in Maruranau?

It was a challenge to learn in a foreign language in the earlier day for me. But we Wapichan were interested in attending to school because it was something new for us although we found English difficult. Then later the school began to have local teachers My wife and I, and we helped the children by explaining the lessons to them in Wapichan, because to teach in a foreign language to the children was something different for them to learn. It did not take the children much time to learn, they were smart and they learnt fast. I made them sing in the Wapichan language and English. This helped them to learn quickly by memorizing English words in songs. (Leo Gomes, June, 2019).

This practice of using the mother tongue in the classrooms continues today in Maruranau primary as mentioned by this young woman who had this experience during her days at school in the village: *“Most of the time the teachers explained things in English that we did not know for example: like airplanes, ice cream, etc. And they still practice this at school with the children which is helpful to them”* (Yvette John, June, 2019).

Education in Guyana’s post- independence era is summed up by a former student and elder who uses a fictitious name Joana Smith, she recalled that in the 1970s, Maruranau church school was handed over to the new government and education that time was aimed to develop an independent nation, with the doctrines of nationalism and self-sustenance with products from school farms and local agriculture. While these ideologies were taught, parents continued to cultivate the importance of education at homes to send their children to school to learn and become professionals. In this process Wapichan learnt that education required a lot of money and from that awareness they realized that it was necessary to have finance to invest in their children education.

This experience brought an economic impact on the Indigenous people as there were not many paid jobs for them in the community to generate income for all, except to work on farms. Ironically, the education that meant to be socialist and autonomous was demanding money; and knowledge of it was learnt in a reinforced way as education itself began to demand investments. In her narrative, Joana made a comparison with the socio-educative reality of education after independence which differs with earlier times where the population was small and the Wapichan worked and earned payment at Dadanawa ranch and the balata industry to support their families). Post-independence education ruptured the dependency on the previous church administration where everything was maintained by missionaries but encountered difficulties in its efficiency to deliver and administrate. However, according to this Guyanese author Ishmael (2012), who wrote evaluating the education system of Guyana's post-independence era stated: *“from an early age Guyana's independent government recognized the need to educate the young generation whose capacity can serve for the development of the new nation”* (Ibid., 2012, p. 17

Question 6. What was the experience of school after independence?

The school I attended was the second one located that time in the churchyard. The school was runed by the new government and education was geared for us to be independent. That time parents were interested in the education of their children, because they believed that learning the basic concepts was important to be recognized in addition to becoming qualified people when they grow up. This importance was reinforced in the homes of the community. I also remember the new government introduced agriculture in the school and in the community so that we could learn how to plant crops and become independent and thus know how to deal with money. But it was not so. Situations changed and parents are under financial pressure to be able to support their children to buy books, pencils and other things that the school asked for. Most of them have no jobs, they are mostly farmers. A different time to the past where there were few people and the church took care of everything and the Wapichan worked in Dadanawa as cowboys and with balata bleeders in Apoteri to earn mo ne (Fictitious name Joana Smith, June, 2019).

Testimonials from parents

The most dramatic experience for Wapichan of Maruranau community in regards to education is that with the idea of “progress” and “development” of the independent and socialist government, those who became government employees at the school or at the health sector in the village, are fewer compared to other professions in the informal sectors, who stay in Georgetown or elsewhere to acquire job opportunities to earn money for upward mobility. Besides this reality of education that takes away most young people from the village, certain gratitude is given for hot meals and uniforms provided to children by the government. Other concerns expressed are of the Rights of Child (R.o.C) policy introduced in the school that is believed to generate repercussions which act in defence of children against physical violence, a circumstance that falls on issues of indiscipline at school among others. Besides this, there is the perception of the churches’ teaching that influenced some aspects of Wapichan beliefs in respect to marriage and family structure. Ultimately, in the modern school Wapichan learnt to believe in the value of professionalism and to do everything to achieve it in this world, different from the first school that dealt with moral values in the lives of indigenous people reinforcing sharing and communality. Ironically, the interlocutor says that the church school promoted community based on “Christianity” and that the “modern school” promoted personal achievements and “development” of the country.

Question 7. What are some experiences of the modern school?

I recognize the positive side of the modern school in offering education to Wapichan for development. The school produced a good number of brilliant people who are professionals to work outside of the community in Georgetown and elsewhere. Unfortunately, when this happens most of them do not return to the village. While few Wapichan returned to work here as trained teachers and as health workers, this is good. There are other good things that the school offers to our people. It provides meals and uniforms for children. However, there are negative consequences that the new policies introduced in the school, like the rights of child. For example, today there is the issue of indiscipline in school, teenage pregnancy, and school drop-outs. Children have rights and teachers cannot discipline them at school. I remembered when I was a child we were disciplined and this was reinforced at home by parents. Today there are parents who do not care for their children and I see that there are many single mothers who left their children to be cared for by grandparents. In the past, there was not much of that, many were married people, because the teaching of the church was strong in the life of Wapichan. There were many weddings and most families were structured so they raised their children together. (Fictitious name of a teacher Eve Thomas, June, 2019).

For this other narrator who uses the name Yvette, her perception of education to Wapichan children is that those who are most familiar with studies; they excelled in learning and continued to progress academically with the help of extra classes given by dedicated teachers. She mentioned that there is a belief by most villagers that some children who obtained great results at exams are those of educated parents or children of leaders in the community. However, the interlocutor mentioned that this is not true as there is the other experience of some parents and grandparents who have little or no education, but valued it and therefore encouraged children to make personal efforts to acquire same. Additionally, Yvette’s narrative gave the perception that the school in Maruranau encouraged some villagers to value education to the detriment of solidarity and learning from older people as Wapichan wisdom.

Question 8. Do Wapichan value education in Maruranau?

I see there are some Wapichan children who are performing well, especially those who are brilliant. For the children who do well I see it as something good because I believe the good results also come from the extra lessons received from the dedicated teachers. I also see that children who perform well are commonly those whose parents are teachers and other leaders in the community. Because they usually see their parents worked in the village as teachers, and this encouraged the children to go to school and study. Although I think this is not true for all of them who have parents who are leaders and who are educated in Maruranau. For I also see that there are some parents or grandparents who are not educated and who are not leaders in the community but who value education like my grandmother. My grandmother raised me and sent me to school and encouraged me to take my primary education, if not today, I would not be a health worker here in my community (Fictitious name Yvette Lucas, June, 2019).

While for Anna which is not her real name, her narrative reflects parents lack of interest in their childrens' education as well as the criticism of teachers who do not take initiatives to be innovative in delivery of lessons. Competition between older and young teachers does not allow for an efficient delivery of "quality education" for Wapichan children in Maruranau. The narrator also shared a concern to have an updated pedagogy. She further suggested if lessons were taught in the childrens' mother tongue officially they would be more interesting for the children because the concepts in the language have history and content which is part of the experience accumulated by the Wapichan. However, she valued the learning of English to be bilingual in order to survive out of the village and excel in society.

Question 9. What is Wapichan perception of school and education?

When I was a little girl I love going to school, and my grandparents encouraged me to go regularly. Not today! Today this generation shows no interest in the education of their children. I also think that the school does not offer learning with an innovative and interesting pedagogy for children to learn. Another issue is that the school has young teachers, who are not trained or unprepared to teach children, and there is competition I see between young and old that doesn't contribute for efficient learning outcome of pupils. Teaching is the only job opportunity in the village. That's why some young girls and boys take it up. But I also think that maybe if children were taught in their own language it would be more interesting for them, but it is important to learn the country's official language as well to survive out of the village and to work and develop the community and country (Fictitious name Anna Torres, June, 2019).

To juxtapose the Church education during the time of Gena and Leo and the present public education delivery, the church education allowed teachers to be creative and innovative in using music in school to capture the interests of students, but with the new state-run school, music and creative learning seem less practiced because of a tunnel vision of teaching known as the chalk and talk tedious method that makes children not interested in learning.

The following narrative, Julie Edwards recalls fun memories and experiences of the Wapichan language at school; and how children learnt to write in English as a second language, but it did not continue with the same communicational dimension which for her, school could not understand the value of it. The experience of school reconfigured some elements of the local culture, but despite the rigid and meritocratic system of learning at the institution, education was also acquired spontaneously in other environments such as: church, farm and homes where the local language and culture were practiced.

Question 10. What were some of your fun memories of school when you were small?

I had many friends and they were all Wapichan children in the school during the 1980s. During break time everyone spoke Wapichan while we played and had fun and when we returned to the classroom we would speak in English. This was normal for me. I didn't find it difficult to switch from Wapichan to English. This type of activity was part of school life. I remember when I was little my life revolved around the house, school, farm and church. Primary school taught me a lot, it even helped me realize that I was growing up because each year I took exams to pass and go to another level. I remembered that writing in English with a pencil was a good experience. It was good to learn to write in another language. I remembered when I first wrote my name in English. But outside of school I always asked myself why I couldn't do the same in Wapichan [smiles]. Anyways, the days of primary school were good (Fictitious name Julie Edwards, June, 2019).

Debora in the following narration pointed out that education in Maruranau should be free as the state proclaims, but parents are under pressure to get money to send their children to school. They are struggling financially to keep their children in the institution to learn. Joana had already commented on the knowledge of money which was reinforced in the education system of the post-independence era. This is a situation of a state that is promoting national development however, there is a need to understand that they are Indigenous people most of them are subsistence farmers. Parents usually work hard to send school supplies to their children; and when they are successful at exams there will be limited op-

portunities to excel and most time most leave to live away from the village. This is unsustainable thus the government needs to pay special attention how to deal with the situation as a government of all.

Question 11. What is the main challenge to send to your child to school?

In Guyana, education supposed to be free but most parents who are famers here are struggling to earn money to send their children to get educated and in most cases, in the end, many of their children will fail their exams. Or when few pass with high marks there are few opportunities for them to continue onto a next level or even get a job. Generally, most young people will leave the village to seek jobs outside. This is a reality of education in Maruranau today. Hope Government can pay attention to this situation happening to our young people in the community (Fictitious name Debora Singh, June, 2019).

Marie shared her experience of secondary education since it was introduced to the Indigenous peoples of South Rupununi a few years ago. She pointed out that it allowed some Wapichan (few females) of Maruranau to acquire secondary education with its meritocracy system. The interlocutor recalled that this selective experience of formal education came from the first school in the community that taught Indigenous people to compete, be selected and ultimately fails most of them. For her this meritocracy system contrasts with Indigenous customs where all are on the same level of knowledge acquired from the local environments and learning from elders. The narrator further pointed out that Indigenous culture doesn't teach who is intelligent and who is slow in learning. However, the good side of secondary education for some is that with success in passing the Caribbean Secondary Education Certificate (CSEC), the academic grades guarantee students to get a few jobs as government employees in the community while others earn jobs out of the village. Nevertheless, she believes that such reality of secondary education deters the Wapichan students and their parents contributing to mix feelings about it and as an alternative, some parents would encourage their children to work on the farms for some times at homes after finishing school, then encourage them to seek jobs out of the village.

Question 12. What do you think of secondary education?

My grandmother could not support me financially to obtain a secondary education, because she didn't have money. This is a problem with most girls. Besides, there were children from other primary schools in the sub-district who are selected to enter secondary schools in Aishalton and Sand Creek in South Rupununi. So, for me, I see this as competition where only a few will pass and get a secondary education and others will not. I think this sort of selection comes with the entry of the first school in the community, where it taught us to compete in formal learning. This is not our culture; our culture is to learn in harmony and be on the same level as we learn from the elders and the environments. I think there is no one in our culture who is brilliant and who is dunce. Every child has his or her way and pace of learning. This experience discourages students and their parents. In addition, when students go to secondary school spending five years outside their community, some of them would pass the Caribbean Secondary Education Certificate (CSEC) exams and leave Maruranau to work and earn a living and rarely return. These things some parents are seeing happen to their children after secondary school. For this reason, some encourage their children to work on the farms after finishing primary and secondary schools then allow them to work outside the village. (Fictitious name Marie Torres, June, 2019).

Testimonials from Teachers

The education system for Simone is that it should be inclusive and not rigid in its one-size fit all approach to learning which does not cater for Wapichan and their languages and culture in Guyana. Aware of this modern school education, she pointed out there is need for a national curriculum that is indigenized where classrooms can be culture friendly incorporating the childrens' knowledge of the environment and local language which she suggests could assist them in the flow of communication and transition gradually from the known to the unknown in academic learning.

Question 13. What do you think of the education applied to Wapichan in the school at Maruranau?

I think the education system needs to see things in black and white. I believe that if there were an education policy to have the lessons officially taught in the local language in school communication would be flowing, because more children would be able to express themselves. Also the classrooms need to be culturally more inclusive: for example, most textbooks reflect the dominant culture of the coast (Georgetown) and teaching materials need to be inclusive of the local culture to make space for children to learn from local animals and birds and so on. And from this learning aspect there can be a slow transition from the known to the unknown so that children can identify. (Fictitious name of teacher Simone John, June, 2019).

The teacher's awareness of the language and aspects of the culture which should be incorporated in the curriculum are also aware of the groundwork and preparation to make the proposal materialize. However, the Wapichan educators and others already began to collaborate with the Ministry of Education (MoE) to produce pedagogical materials base on the national curriculum for the nursery school in Maruranau and two other pilot nursery schools in South Rupununi as an effort to contribute to an indigenized curriculum³.

For Judy John, she shared the need for trained teachers in early childhood using the local language besides an updated pedagogical teaching method that is important. She emphasised that as a consequence of this, there is a reality of some children performing well and most not, which reflects a poor academic performance among learners:

Question 14. What are some challenges you encounter with teaching?

The school currently needs continued upgrading education programmes for teachers, and the teaching pedagogy also needs to be updated. It requires training by specialists to coach the teachers to teach using the Indigenous language in school, especially for children in the early years of learning. A consequence of these challenges there is the problem faced at school where children are at different levels of performances, and most are left behind. (Fictitious name of teacher Judy John, June 2019).

This interview took place when the bilingual programme was being executed at the nursery school in Maruranau, but three days were taken off for teachers to participate in a training and evaluation workshop held by the bilingual programme team in the village where the researcher participated and noted the following. The teachers from Maruranau and Sawariwau nursery schools took initiatives during school holidays July and August to upgrade themselves to be better able to read and write in Wapichan language, from training service provided by the local Wapichan literacy programme in their communities. The learning experience boosted the Indigenous teachers' pride and identity as they experiment the gradual development of an indigenized curriculum in teaching the core subjects: social studies, science, health & family life education; centered on inquiry learning to educands in the classrooms, where teachers learnt that language plays an important role in early childhood education in the new pedagogical approach and transition of teachers training.

In another conversation, Cheryl highlighted that the school in Maruranau is perceived as a government property and that some villagers usually cooperate with it because the institution provides education for their children. She stressed that because of this more efforts from parents and the community are needed, and it should not be perceived that because villagers do not have children attending school

³ In 2017, a resource team of 30 persons was created comprised of community members from several Wapichan villages: deputy toshaos (local village leaders), Wapichan language and culture experts, artists, teachers, and others took on the challenge of revising and adapting the national curriculum to encourage the holistic growth of Wapichan children through bilingual education. Inspired in their efforts to promote an education that respects and includes their language and culture, the Wapichan are collaborating with the Ministry of Education (M.o.E), National Centre for Education Resource Development (NCERD), and the jesuits of Guyana in executing a bilingual pilot programme in the three schools in Wapichan villages: Sawariwau, Karaudaranau and Maruranau.

they should not be concerned in assisting. Education should be an interest for all in the community. This experience differs from the first church school where all the villagers collaborated and felt ownership of the institution, because they worked jointly to build it for their childrens' education, a contrast reality to the "modern school" where government invests in constructing the building by employing most contractors from outside of the community.

Question 15. What do villagers think of the school in Maruranau?

I think the perception of the school by most villagers is that it is a government institution. It has the various policies and regulations established by the Ministry of Education. However, the school is part of the community. Parents usually participate as long as their children are attending. Some assist because it offers an educational service to their children. I usually tell villagers that education is a three-way process involving parents, teachers and children. We educators are trying to get this message to the community so that parents can be more involved in the school, but it is a challenge. Most people have this belief that because their children finished school, they don't have nothing to do with it but it should not be so. The school should be a community concern for all where everyone contributes to it even if villagers have children attending or not. For example: whenever there is a meeting, we will not see many participating only a few and usually the parents who have children going to school (Fictitious name of teacher Cheryl Martin, June, 2019).

In the following narrative this teacher laments the issues from regional authorities that requires a lot of bureaucratic work from them which often disrupts the school in meeting its goals for a given semester or year. Furthermore, most times authorities delay in responding to requests that deal with finance or supply of teaching materials to the school, even though the institution usually tries to raise its own money. The other concern is exaggerated sports activities that rob students of lessons, although sports are important for health and for competing with other schools during inter-schools athletic championship that is part of the national school curriculum.

Question 16. What are some issues that hinder the school from achieving its goals?

There are some issues encountered by teachers at the school that frustrate us examples: regional authorities are slow in responding to our letters when we make request for the needs of the school. Others are: financial resources are lacking even though the school tries to raise its own money, and there are many demands from the authorities in the regional education department. These requests sometimes hinder the school's fluency in achieving the goals for a given semester or year. Besides, there exists exaggerated time for students training for sports, this robs them of their academic lessons. (Fictitious name of teacher Mavis Ali, June, 2019).

Testimonials from current students

In the following conversation with a few students who are around 15 years old, they related their experiences that speaking the Wapichan language is an affirmation of Indigenous identity and the other identification is with English the official language of Guyana. However, implicit is that the school's teaching of mathematics, literacy and expressing themselves, learning rules, hygiene and developing their talents through participation in sports and artistic activities, among others, do not consider traditional knowledge, even though gratitude is made for the lunch offered to them at school.

Question 17. Open questions for a group of four students who responded spontaneously.

Do you like school?

We like school because we learn to read, spell and do mathematics. But, sometimes we feel afraid to speak in the classroom. Because the lessons are difficult and we usually find it difficult to think and express ourselves and understand the lessons in English at school, because at our homes and outside of school we communicate in our native language among ourselves (Jim Marco, June, 2019).

How do you feel when you see your grades?

I find school boring at times especially when I see my low grades. Sometimes I don't feel interested in going to school, I prefer to stay at home to go to the farm with my parents, but I have to stay in school until I am 16 years old. I think this is a waste of time (Luizinho John, June, 2019).

Does your teacher help you with the lessons?

The good thing is that teachers usually explain to us in Wapichan, at times when we don't understand some things they teach to us in English (Andressa Paul, June, 2019).

What is good about school?

The school gives us opportunity to travel and compete with other schools through athletics and also learn about Guyana and its people through social studies. Including recently, I went to participate in a science fair and my school won a trophy which makes me happy. School teaches us to speak English, obey school rules and behave well. The school also offers lunch every day for children which is good (Vaunda Singh, June, 2019).

Summary

The narratives presented in this paper give a comprehensive account of formal education to the Wapichan for eighty one years in Maruranau Village South Rupununi, since its introduction in the 1940s up to present, and also highlights their initiative of the current pilot Quality Bilingual Education Programme (QBEP) that was initiated in 2018 in Maruranau nursery school and in two other schools in Wapichan communities.

According to history of the Wapichan they became allies in 1891 with the Mevilles and were engaged in Balata and Ranching enterprise. Later in 1919 those in Maruranau were introduced to Catholicism and subsequently in 1940s to formal education where Arawaks from Santa Rosa were their teachers. The education at that time was centered on the four Rs: reading, "riting", "rithmatic" and religion. Generalized information suggests that prior to constituting formal education to them they were not exposed to any formal schooling.

School education to the Indigenous group for all these years despite the challenges and opportunities has impacted their life with constant transformations making them bilingual people of English the official language of the country and Wapichan. It has also provided them with opportunities for upward mobility and development of the country and their community. However, mainstream education with its focus on meritocracy and tedious chalk and talk learning, contrasts with a dynamic worldview of Indigenous education where all are on the same level learning from elders and from the local environments.

The Church school in Maruranau had a good management system inspite of the challenges, different to the post independent administration that fell into dilapidation in the 1970s. The church education to Wapichan supported communality and taught values, ownership and promoted creative musical methods in learning, while the experience under the new administration which had a decolonizing and autonomous approach to Guyanese children like the church, did not recognize officially Indigenous culture and language in the classrooms. Additionally, the new education system that taught autonomy and socialism resulted ironically in demanding money; and knowledge of it was learnt in a reinforced way as education itself began to demand investments for progress and development.

Albeit mainstream education continues to transform some aspects of their language and culture over the years, Wapichan are resilient in keeping most alive with grassroots projects in the community. They organized themselves drawing upon their knowledge of education and other sociocultural resources in their villages to address the current one-size fits all education approach that fails most of their children. Being in collaboration with the ministry of education, they are developing an indigenize curriculum for nursery level, using the local language and Indigenous epistemology to teach the children in the pilot schools with the hope of addressing the challenges of meritocratic learning while sysmultaneously teachers are being equipped with the necessary literate skills and empowerment to teach the educands

in the new pedagogical paradigm from the learning provided by the bilingual programme in collaboration with the Ministry of Education.

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Notes on the Stone Tool Discovery within the Vicinity Diamond Housing Scheme on the East Bank of Demerara

Louisa. B. Dagers

Abstract

The archaeology of region four, Demerara Mahaica; remains relatively unknown although there are fifteen recorded sites within the region less than fifty percent of these sites were investigated to date. While the record is of the Abary phase, the material assemblage diversity of this region is yet to be evaluated, the inadvertent discovery of the elongated curved double-sided stone celt of diamond sheds light on the broader occupation and interaction of the region four cultural landscape.

Keywords: Inadvertent, Double-sided axe, Diamond scheme, material culture

Background

While archaeological investigations of the region begun in the 1800s, very little systematic site investigations were conducted over the years. In many instances inadvertent discoveries go unreported and are poorly documented. On the other hand, site investigations made during the early 1800s to the mid 1900s were poorly recording oftentimes proveniences and or established methodologies were not elaborated upon, hence, little is known about the region's archaeology. Among the first recorded archaeological sites include the naturally occurring shell reef at the back of Enmore sugar estate and Batchelor's adventure which produced a number of stone artifacts and pottery (see Im Thurn (1884)) for discussion. Similar sites were discovered in plantation La Bon Pere by B. Howell Jones as reported by Im Thurn (1884). Quelch 1894 also conducted archaeological investigations within the vicinity of Plantation Mon Repors where he describes what he believes to be Carib material culture. Verill (1918) later describes a series of small round hills which he refers to as (Knoll) along the Abary river and savannah which he describes as burial mounds. Subsequently Vincent Roth (1922) conducted archaeological investigations in the Mahaica River, where he described a stone age bead factory.

Roth (1924), also discusses investigations of Plantation Mon Repos, Chateau Margot and LBI notably his investigations recovered several pottery sites along the coast. In an effort to contextualize the archaeology of the area Osgood conducted a comprehensive investigation of the region in 1944, during which time he revisited a number of previously investigated sites including the shell ridge which extended along the back of plantation Mon Repos, and plantation LBI and Chateau Margot. He noted the resemblance of the material culture to that of the Los Barracos culture. Additional sites investigated during this period included the Lama River shell Mound, Lusignan Ceramic site and other sites associated with inadvertent discoveries that include Plantation Vryheids Lust, Plantation Melvill, Clonbrook, Palmyra, Huntly, Cane Grove and Non Pariel (see Osgood (1945) for discussion.

Evans and Meggers (1960) archaeological investigation of British Guiana revisited a number of sites including Verill's (1918) Abary river sites which resulted in the classification of the Abary Phase, lending greater insight into the possible origins of the pottery type and material culture. A. Thompson (1979) later reported a similar mound site as that reported by Verill (1918), Roth (1922), Im Thurn (1884) and Meggers (1960) during the construction of the Abary reservoir-a site never investigated. Attempts to locate and investigate sites within plantation, LBI, Mon Repos and Enmore in 2014 proved futile as the land mass was completely integrated into the sugar cane fields, though evidence of sea shells remained visible during the site visit (see Dagers 2014). To date approximately fifty percent of previously recorded sites within region four were destroyed as a result of economic development including intensification of agricultural activities and illicit trade of cultural property, given the absence efficient policy infrastructure and intuitions to address archaeology and site protection (see Dagers 2015 for more further discussion).



Figure 1. Image of Natural Reef integrated into Plantation Enmore.

Findings

The inadvertent discovery of the diamond housing scheme elongated curved double-sided axe was made during the period of 1997/1998 in the midst of infrastructural development of the scheme, an area which was once lush green sugar cane fields on the East Bank of the Demerara River some 25 miles from the Capital City Georgetown. This discovery was only reported in August 2021 by the contractor at the time Mr. N. Seereeram who reportedly made the discovery within the vicinity of present-day 17th street, in the excavators back waste which was predominantly clay according to Mr. Seereeram.

The elongated curved Double-sided celt constitute the limited record of the of the region four cultural landscape. Although this appear to be an isolated stone tool find, it is notably the first of its kind to be documented in region four. However, a similar fashioned stone axe was reported in Mazaruni region. Roth (1924) also reported finding two curved double sided celts within the vicinity of Sand hills of Region Three,. The length of the axe measures 18cm, the width at the widest point measures 6.5cm, with the head of the axe measuring 6cm. There is a visible worn 4cm wide band around the narrow end of the celt sustaining heavy wear around the artifact where it appears to have been fixed to a shaft. The artifact appeared to have been well polished though it displays evidence of weathering. The artifact many have served multiple purposes given the positioning of the cutting edges and with functional adjustments to the shaft. The artifact is not a typical representation of Abary phase material culture and suggest greater variability and diversity of the material cultural of the region, and may support to Evans and Meggers (1960) suggestion of greater interaction among cultures within Guyana's cultural land-

scape. It remains unclear to what extent inadvertent discoveries are reported generally, to date there are no record of any newly reported new sites within the region, what remain clear is the need for an integrated approach which should involve local communities, heritage institutions and government to better monitor infrastructural development in a broader effort to safeguard national cultural patrimony.



Figure 2. Image of the Diamond Scheme Elongated Curves double-sided celt

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