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# Archaeological fieldwork at Eripe cave complex (Gulf province, Papua New Guinea)

From the 29<sup>th</sup> May to the 20<sup>th</sup> of June 2024, a team of six people carried out the 2<sup>nd</sup> fieldwork of the *Papuan Past Project* in the Purari region, following our [2023 survey](#).

They undertook an archaeological excavation in the [Eripe cave complex](#) in the upper Purari region, near [Ururu](#) village (Kikori district, Gulf province). The team was composed of two CNRS researchers – *French National Centre for Scientific Research* ([François-Xavier Ricaut](#), [Sébastien Plutniak](#)), one student from the University of Toulouse, France ([Martial Seguin](#)), one researcher from the University of Sao Paulo in Brazil ([Astolfo Araujo](#)), one researcher from the University of Papua New Guinea ([Matthew Leavesley](#)), and one cultural heritage officer from [TotalEnergies EP PNG Ltd](#) ([Avis Babalu](#)) who is also pursuing a Master's in Archaeology and Anthropology at the University of Papua New Guinea.

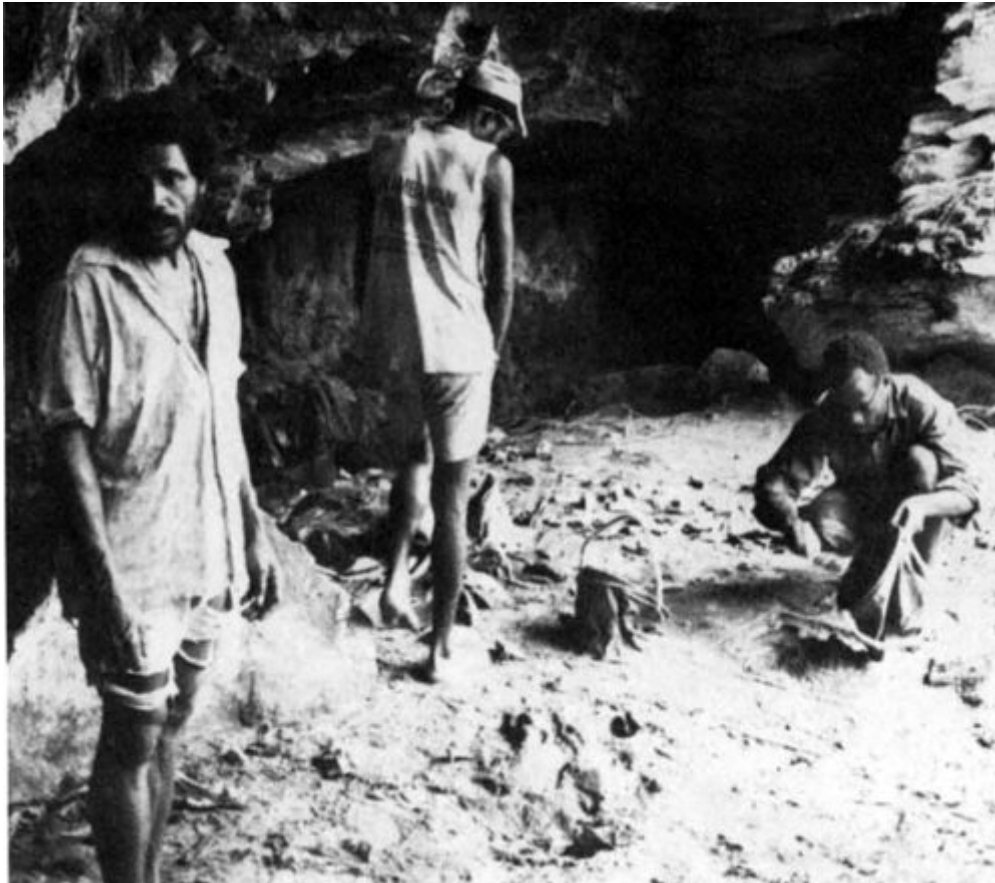
## Anthropology studies along the Purari River



The Purari river. Source: *Openstreetmap*.

Ethnographic records show that the Purari River is a long-term corridor for interactions between the lowland and highland regions (**Maher 1984**). Recent genetic [studies](#) confirm these records and suggest that the Purari River may have been used as a route since the early settlement phase of the highlands ( $\approx 25,000$  years ago). We detailed this aspect in a [post](#)

published in 2023. Interestingly, the Purari region has been targeted for the last fifty years by multiple industrial developments projects: dams were envisioned in the 1970s and again in the 2010s, oil extraction was planned and started, and more recently a gas extraction project is ongoing. These projects have led to numerous environmental (**Petr ed. 1983**) and social surveys (**Sullivan et al. 2012**). However, very few archaeological excavations have taken place in the upper Purari, except the quick survey carried out by Brian Egloff and Ombone Kaiku in 1977 (**Egloff & Kaiku 1983**).



Excavation at Eripe in 1977. From **Egloff & Kaiku. 1983**, p. 483.

## **From the University of PNG to the Eripe cave complex**

After some team members collected the archaeological research permit at the [National Museum and Art Gallery](#), and others went to the University of Papua New Guinea to prepare the archaeological equipment for the Purari fieldwork, the team left Port Moresby for a four-day mission to the Eripe cave complex. The team benefited from the logistical support of TotalEnergies EP PNG Ltd in terms of transportation, accommodation, and access to local communities.

The first day we flew in a small ten-seater plane from Port Moresby to the [Purari airstrip](#) where we took a ferry boat to TotalEnergies main logistic camp (Herd Base) and spent the night. The next day we took a small boat upstream on the [Purari River](#) for 87 km to reach Wabo station (one of TotalEnergies outposts) where we overnighed. At Wabo we finalised fieldwork preparation (food ration) and held meetings with local community – the [Pawaia tribe](#) and the representatives of their seven clans – on the land of which we will stay in the forthcoming days. The third day we took two small boats up the Purari River to the Uraru village, where we held another meeting with the local community and overnighed.



Travelling by banana boat along the Purari River.

On the fourth day we left the Uraru village guided by the owner of the Eripe caves, his relatives, and numerous members of the seven clans. We followed bush tracks for eight hours to the Eripe cave complex, where we established a base camp between the Po creek and this complex. The next day the team started the excavation.



On the bush track to Eripe cave complex.



Pawaian women traveling with the research team.  
Wooden ladder built to reach Eripe 2.

## Excavation at Eripe

The Eripe cave complex was first identified and evaluated in 1977 by Brian Egloff and Ombone Kaiku from the National Museum and Art Gallery (site code: ODP, **Egloff & Kaiku 1983**). It is a large karstic system with three main entrances, referred to by locals as the “men”, “women”, and “couples” cave respectively. The first day we followed our local guides and explored a part of the underground karstic complex, walking through hundreds of meters of galleries and five large rooms. Moving through this system was relatively easy (no need for climbing equipment) and we observed only a few animals (crabs, insects and megabat of the *Dobsonia* genus referred by local as “flying foxes”, which they hunt). However, underground access to the “women” and “couples” caves was impossible due to the very steep and slippery paths, leading us to consider accessing the large “women” cave from outside.



Inside the Eripe cave complex.

Based on these first days of observations the team decided to open an archaeological test-pit in the “men” entrance, hereby referred to as “Eripe 1”. We excavated three square meters with ten centimeters spits and piece-plotted relevant remains. Sediment was dry-sieved on site and water-sieved in the Po creek near the camp.

While we were working at Eripe 1, some of Pawaia helpers opened a track to access the “women” entrance (referred as Eripe 2). On the last day of our stay we could open a small test-pit in Eripe 2, revealing a rich faunal assemblage.



Archaeological excavation at Eripe 1.



Happy Pawaian volunteers after refilling the testpit.

## Daily life in the forest in Pawaia territory

A minimal camp infrastructure was built before the arrival of the team, and subsequently improved over the next few days. A toilet was built 20 meters from the camp, as well as a kitchen space with two fire places and shelves to store bags, food, and equipment. The Po creek was used for body washing. On the third day heavy rains flooded the camp and required us to dig an extensive draining system.



Wooden floor and shelves in the camp.

In total 21 people lived in the camp: five researchers and sixteen local men belonging to the seven Pawaian clans. This last group was divided into three teams: one looked after the camp, one helped at the Eripe 1 excavation, and the last team opened a bush track to Eripe 2.



View of the camp showing two areas cover differently.





Locals' area in the camp cover by roof sago leaves



Research team's area in the camp

Water played a particular role during our stay. It rained every afternoon slightly or heavily. We experienced heavy tropical rains, lasting up to 36 hours, with significant consequences on our daily activities: the camp was flooded several times; forest tracks and river crossing became difficult or impossible to use; Po creek waters – loaded with sediments – became unsuitable for drinking and bathing. Although this weather made living condition harder, we managed to reach our aims, leaving the area with satisfying results.



Draining system to dry the camp during heavy rain.



Bathing at the Po creek few days before heavy rain and muddy water.

## **First analysis and perspectives**

Back to Herd Base, the team started to process the archaeological remains, by water sieving, drying, sorting and re-packing. This work was pursued at the [UPNG archaeology laboratory](#). Significant artifacts were photographed.



Sorting archaeological remains at



Eripe camp.

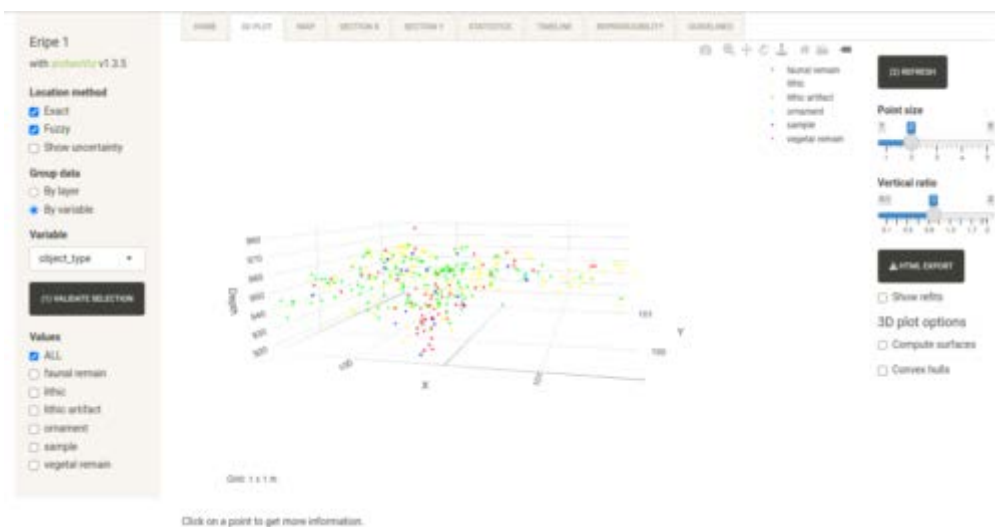
Sorting archaeological



remains at Herd Base.  
archaeological remains at UPNG.

Drying

First spatial analyses of piece-plotted remains were performed using [archeoViz](#) application, generating an [online model](#) of the results. In addition, a selection of samples was made for further analysis (C14 dating, sedimentology, etc.).



Visualisation

and exploration of Eripe 1 data with the [archeoViz application](#).

Sorting and analysing the material will be continued by the UPNG archaeo laboratory team members. Avis Babalu will focus on Eripe material for her ongoing master thesis. Result will be presented to forthcoming international conferences.

## References

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