



**Recording of Rock Art in the  
Upper Karawari Region of  
Papua New Guinea**



**An Explorers Club Flag Expedition**

## **Introduction;**

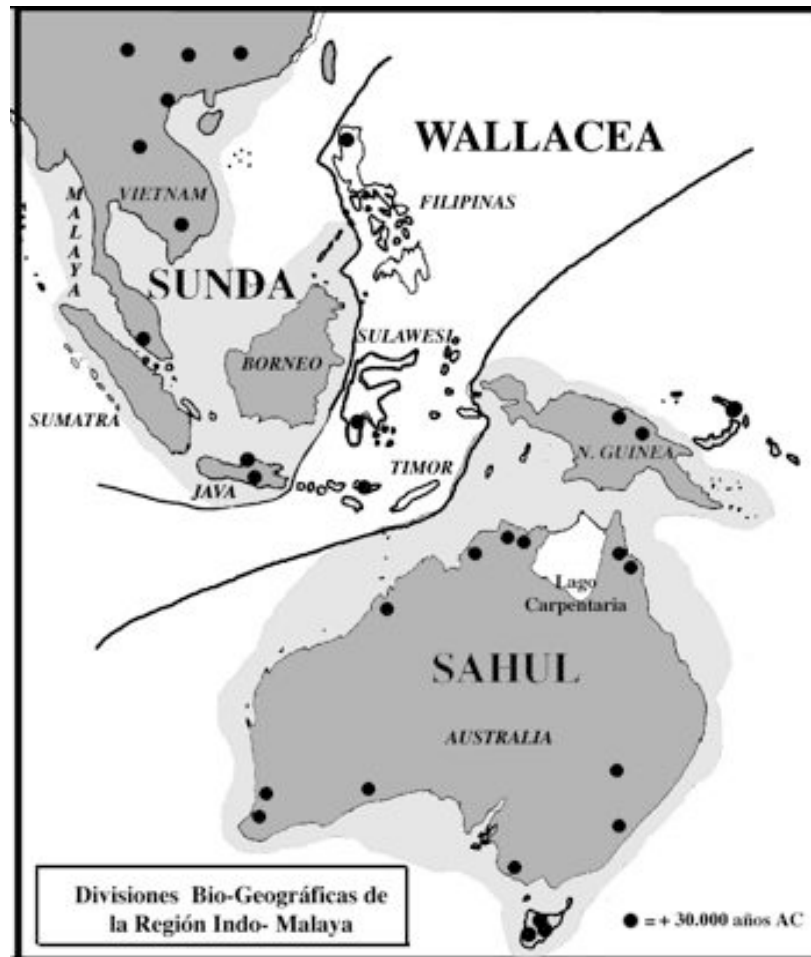
Papua New Guinea as well as Australia, was first settled by humans when it was still one sole landmass named Sahul, around 60.000 BP. Its first settlers, to get there had to cross the strait of Timor, a large water barrier about 70 km. wide, probably one of the first great feats of mankind. The presence of this land could have been perceived by volcanic eruptions in Papua New Guinea, emigrational birds, or by flotsam arriving to the coasts of Timor. Once they settled Sahul, supposedly one group went north becoming the forefathers of the Papuan inhabitants that today inhabit West Papua and Papua New Guinea, meanwhile the other group turned south, becoming the ancestors of the Australian aborigines.

Changes in the sea levels triggered by glaciations reached its peak around 30.000 BP when the sea level dropped 120m, therefore it is probable that Australian aborigine group could of lived for many thousand years alongside the Papuans, but by 18.000 BP, the ocean raised again, covering the Arafura plain and both land masses started gradually to separate by the invading sea that formed the Torres Straits. From 10.000 BP onwards the rate in which the sea raised was slower, but it nevertheless ended by separating both populations for good around 6.000 BP. The ocean present level was reached around 4.000 BP before the arrival of Austronesian migrant groups that settled upon the northern coast of East Papua, and the PNG area with its neighboring islands.

The Australian Aborigines rock art, specially its painted caves and rock shelters developed at a very early stage and although we still do not have a very precise date for its antiquity, in Kakadu National Park some cave paintings could have been made 50.000 years old. (Chaloupka 1993:91) and because of the closeness of both populations, it is probable that such rock art in the island of PNG could have a great antiquity.

At present many caves and rock shelters covered with rock art have been found and recorded in West Papua, East Timor, and as far as Kalimantan in Indonesia, but these are the first to be found and registered in PNG. Many of these paintings show similar characteristics to those found above, been most of them stencils of hands, sometime with the arm, boomerangs, animal footprints, or geometrical designs. Few of them have been dated so far in these islands, but those from Kalimantan have been dated to 12.500 BP, but others could be much older. In PNG the existence of a few (5) caves with rock art had been known since 1968, but until last year, they still remained unrecorded or studied. The largest amount of them have been discovered in the Upper Kariwari region by Dr. Nancy Sullivan and her team during the last 6 months, and so far 150 such caves and shelters covered with paintings have been located and summarily described, but many more have now been located in the Upper Karawari and Krosmeri river region and are in the process of been visited by our team.

The purpose of this mission, is to record systematically all this rock art, and other archaeological remains located on these caves and rock shelters, and to date its antiquity, as well as record all the ethnographic information related to their sacred use by their present owners, the Yimas and Awin people who still consider them their ancestral sacred places, where life was created.



**Bio-geographic divisions of the indo Malayan Region and location of early archaeological sites ( In Edwards 2008).**

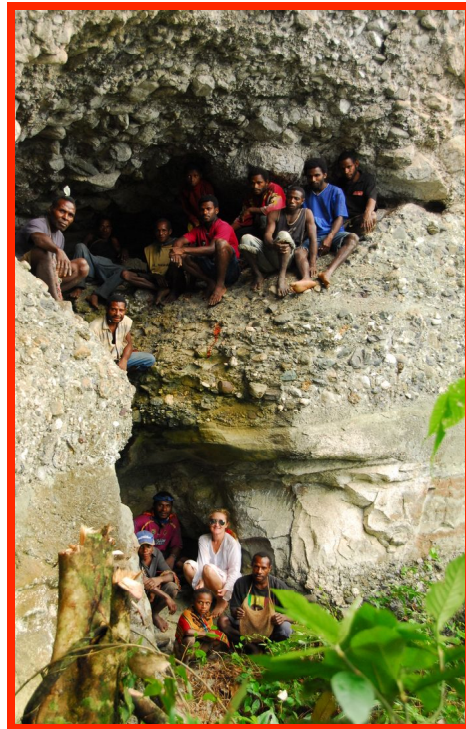
## 1.- Participants

To carry out this research we have set up a joint project between Nancy Sullivan Ltd and Antonio Cruz Mayor Prades, International President of the Museo del Prado in Madrid, Spain who is financing the entirety of this Expedition. The first session will take place in April through August 2008 and it involves the collaboration of the Eastern Pacific Research Foundation represented by archaeologist Edmundo Edwards and his rock art team, who will be in charge of recording these rock art panels using photographic and video techniques, as well as producing detailed maps of these caves and rock shelters. In addition, a

professional documentary will be produced showing the research carried out by this Expedition.

Dr. Bassam Ghaleb, PhD from McGill University, who dated the Chauvet cave in France, is one of our participants, and will be in charge of obtaining samples by non destructive means to date the paintings with the assistance of archaeologists, Professor's Patricia Vargas, Academic Director of the Faculty of Social Sciences of the University of Chile and Professor Claudio Cristino, from the Institute of Easter Island Studies,<sup>1</sup>. Dr. Paul Aharon, PhD., Ray E. Loper Chair Professor in Geology of the Department of Geological Sciences of the University of Alabama, has offered to assist Dr. Ghaleb with the radiometric dating and paleo-climate assessments of these samples, based on stable isotopes in stalagmites and other means, as well a preparing them for AMS dating.

Australian archaeologist, Dr. Chris Ballard, from the Australian National University is also affiliated with the project, and hopefully will join us during our stay.

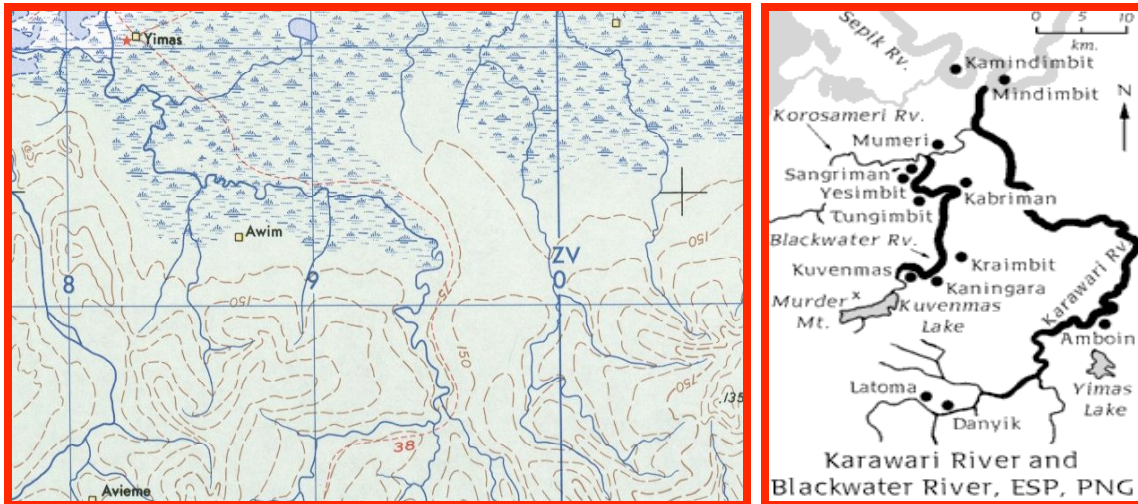


**Nancy Sullivan and her team exploring some of the caves near Awim village**

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<sup>1</sup> This Research Association was created by Dr. Nancy Sullivan, PhD a renowned anthropologist residing for the past 18 years in PNG, who is also a fellow member of the Explorers Club. Dr. Sullivan has recently received a John Simon Guggenheim Grant and support from the National Geographic Society to carry out anthropological and ethnographic research in the Upper Karawari region of PNG.

## 2.- The Upper Kariwari Region



**The Upper Kariwari Region showing the Kariwari river in the East Sepik Province**

The Karawari River is a tributary of the Sepik River--it runs from the Central Mountain Range down to the floodplains on PNG's north coast and onto the Sepik River itself. The Upper Kariwari terrain is rugged with narrow valleys entering into gorges with vertical walls measuring 200 to 300 meters in height. The vegetation is mostly pure lowland tropical rainforest. The Sepik basin was once home to a contact population of approximately 300,000 to 500,000 people in an area considered among the most linguistically diverse regions on earth. Its inhabitants speak over 200 languages and at least twice that number of dialects (Laycock 1973:54). Notwithstanding this diversity, the East Sepik province, has received much less anthropological attention than other areas of New Guinea and ethnographic coverage of the region has been unbalanced, mainly focusing on groups occupying the middle Sepik and coastal region instead of the peoples of the Upper Sepik and Upper Kariwari.

The people of the Upper Kariwari are divided into three main tribes, the Inyai, the Ewa and the Yimas, all of whom formerly occupied the hills behind the Krosmeri river, in an area riddled with caves and made up of dense forests and steep exposed limestone cliffs. In the past, the caves were inhabited by these hunter-gatherers who used many of the caves as sacred men's houses and burial sites. The Yimas were the first to resettle on the flatlands, and are mixed with migrants from the Sepik and Blackwater river systems to the west. Very little is known about when and from where the Inyai-Ewa arrived, or their relationship with the better-known lowland peoples since both seem to be recent migrants from these

caves, and many Inyai-Ewa still live in small villages at the foothills of the mountains.

Local government patrols first made contact with this area peoples in the sixties. At the time, the population density was as low as one person per 5 km<sup>2</sup>. Their staple food consisted of sago, a palm that grows abundantly in low altitude wet lands and is the main carbohydrate staple in the area; other foods included meat protein from hunting and fishing, and they gathered semi-wild plants, bananas, taro, yams, breadfruit and mangoes. Agriculture was scarcely practiced and the rainforest canopy was still largely intact. Only a few outsiders visited the area in the past, either making contact with the locals or crossing from the Sepik plains to the highlands. The MacGregor Gold Prospecting Expedition passed by there as early as 1928, followed by several reconnaissance trips carried out by Australian military officers during WWII as well as Catholic missionaries some of which later settled in Awim. The effects of these contacts were great; missionary influence ended warring and headhunting was eradicated in the late 1960s. As new religious practices were introduced, acculturation increased and ancient subsistence practices were transformed by the introduction of new crop plants and other foods.(Haberland, E. 1966:44)

Aside from these brief encounters, few outsiders have explored the Upper Arafundi, Karawari or Krosmeri Rivers, and the local government first contacted some of these communities as recently as 1969.

### **3.- Previous Archaeological Research.**

In 1987, archaeologists Paul Gorecki and Rhys Jones of the Department of Prehistory, Research School of Pacific Studies, Australian National University, Canberra, conducted a survey in the area, and identified a series of rock shelters in the high limestone escarpments behind the Awim settlement, and visited ten caves. Their project was initially conceived to examine the rock shelters and caves in order to determine whether the caves warranted further archaeological investigation (excavations and fieldwork) to establish when the caves were first occupied. Some caves and rock shelters in PNG and its neighboring islands have been dated back to 40,000 BP; and while Gorecki and Jones noted that the geological formations of the caves in question were not as ancient and were not conducive for the formation of archaeological deposits or middens, they found that most of them were decorated with “major rock art friezes associated with religious and other cultural customs.” According to Gorecki and Jones, the locals told them that they were the first outsiders to have been shown the Awim caves. Current research carried out by Dr. Sullivan, corroborates that statement, however many locals have looted the caves’ burials taking away burial carvings, mortuary relics, hunting amulets, and other artwork in order to exchange these valuables for prestige goods, such as outboard motors and clothes.

According to Dr. Sullivan, some of the caves' unique art pieces have been dated back by C14 to 650-780 AD. Eventually these pieces were sold to dealers who inserted them very profitably into the emergent market of Oceanic art. Today, some of these original carvings can fetch six figures at an auction, and are found in collections from Basel, to the Metropolitan Museum of Art in New York, and the De Young Museum in San Francisco. However, the huge panels covered with pictographs in the rock shelters spread across the territory have never been properly recorded, studied, or described in detail, and very little is known about the ethnographic context of this rock art. It remains to be determined whether the present inhabitants still remember the circumstances that led to the making of many of these pictographs and the religious and sacred meaning of specific depictions inside the caves. Therefore during this joint collaboration, Dr. Sullivan will dedicate part of her ethnographic studies in this area to obtain all the possible information on their use and meaning of the rock art recorded by Edwards and his team.

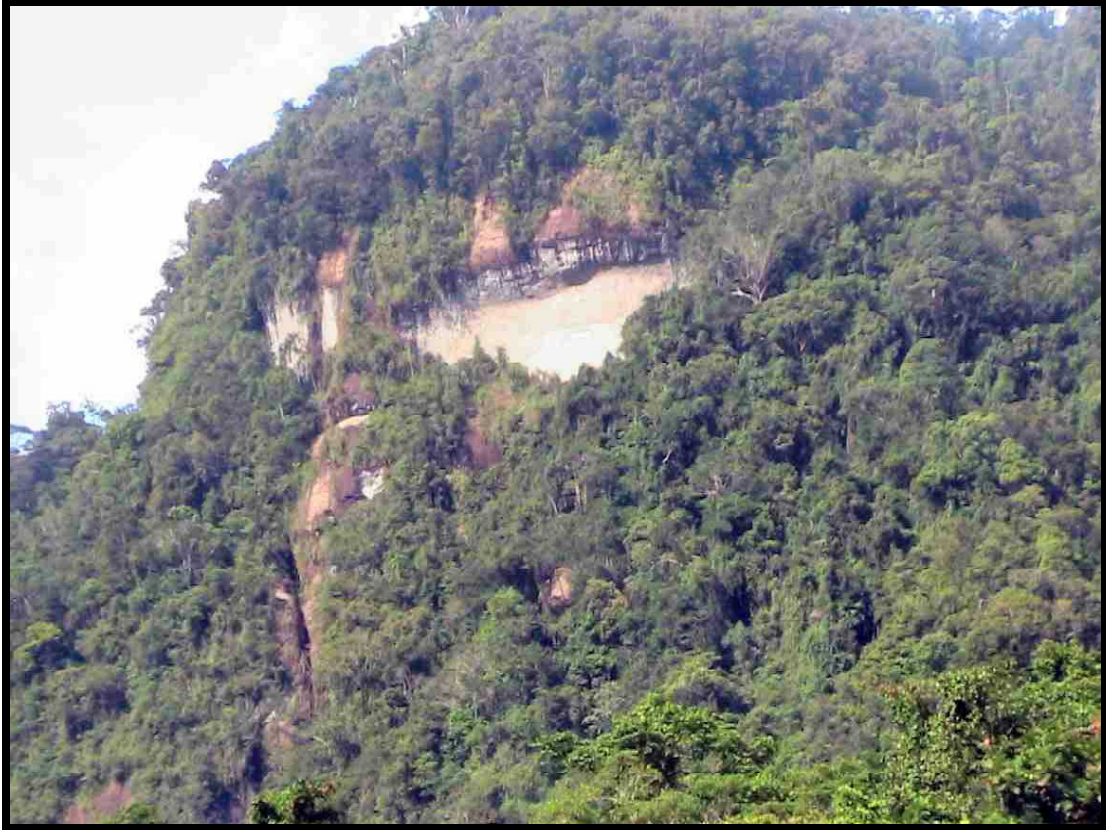


**Some of the hand imprints are made with charcoal that can be C<sup>14</sup> dated.**

#### **4.- Rock Art Caves and Shelters**

Gorecki and Jones described the sites as:

“formed by the erosion of soft, sometimes volcanic deposits interleaved with extremely hard conglomerate, or more accurately, greywacke faces. Typically, these were long narrow rock shelters in the faces of huge, often vertical cliffs. Access to some of these caves was extremely difficult, involving traverses along narrow ledges parallel to the level of the caves themselves and the use of ladders and balustrades made by felling trees.” (Gorecki, Paul and Rhys Jones. 1987 a.) .



**Most caves have a very difficult access.**

Archaeologists Gorecki and Jones reported that the sites were ranked depending on their use—some were used as casual secular hunting camps, others were considered sacred and uninitiated young men and all women were forbidden to enter; these often have “sacred” cordyline and bamboo trees growing near them. The most remote caves explored by Gorecki and Jones were a six-day hike away from their base camp and included an 800-meter climb. They remarked that, “substantial sections of the climb were almost vertical faces of rock which could only be managed by climbing up the tangle of tree roots growing from them. They furthermore said that the rock shelters are “covered with panels of stenciled and painted images” and while some sites have only a few motifs, others have continuously decorated panels measuring up to 60 meters across all available faces of the rock shelters; some have more than 500 figures. It is no wonder then that, in the opinion of Gorecki, who has had extensive experience of archaeological work in Papua New Guinea, “these constitute the greatest example of rock art in the whole of Melanesia.” Gorecki and Jones’ study does not encompass all of the decorated rock shelters and caves in the area, as these are very many of them, and although some of them are quite inaccessible others are easier to reach when accompanied by a proper guide. The exact location of the caves were not fully revealed to the general public to protect them from damage and defacement by graffiti, (Gorecki, Paul and Rhys Jones. 1987 b). as has occurred in other known sites in East Papua.



## 5.- The Art and Motifs Depicted

In all of the sites visited by Gorecki, Jones and Sullivan, the dominant painting technique was that of a stencil made by spraying red ochre, yellow ochre, or white clay on an object placed against the stone wall. The main motifs are human hands (both right and left), sometimes of feet, and occasionally cassowary and megapode claws. Gorecki and Jones clarified, "In some instances the hands indicated signs such as fingers bent at one of the digits, thumbs folded under the palm, or hands with the first and second figures and the third or fourth fingers held together leaving a gap between them. Others showed the Victory sign." (Ibid.) Some caves had over 550 such motifs, superimposed over each other.



**Hand, animal and artifact stencils in cave.**

In addition to hand and foot stencils, Gorecki and Jones described stencils of valued artifacts such as: bone spoons and needles; a woven bag (*bilum*); various plant leaves; shell discs, rings, and nose pegs; belts and ropes with attached shells; and much esteemed *Kina* breast plates made of gold lip pearl shells that were traded up from the Torres Strait region in Northern Australia. In one of the sites, there was a series of six bone daggers depicted on a wall. According to Gorecki and Jones, these daggers were made out of cassowary tibias and were used to kill. A little over a hundred designs were counted up in four other sites, the bulk depicting abstract geometric shapes such as circles, rows of parallel lines, chevrons, lines radiating from a central point, and stick figures.

In two of the sites that were off limits to all women and young uninitiated men, there were extensive areas of bloodstains and smeared lines made from blood. According to Sullivan these were made by “piercing the glands of the penis using a bamboo implement and spraying the blood onto the rock in the context of esoteric male ceremonies.” (Sullivan 1998)

Gorecki and Jones concluded that the motifs depicted in the Awim caves closely resemble some of the northern Australia pictographs, especially those of the Carnavon Gorge region, and they rank these discoveries as one of the top five rock art sites in the whole of Australia/New Guinea area, together with the Australian rock art provinces of Carnavon Gorge (South Queensland), Laura (Cape York), Kakadu (North Territory), and Kimberly (West Australia). It is worth noting that all of the Australian sites are National Heritage sites, one of which was also declared a World Heritage site by the UNESCO. (Gorecki, Paul and Rhys Jones. 1987 a.)

The extent of the Rock Art province in PNG has not yet been established and it is likely that similar art will be found in other caves on the upper Kariwari tributaries such as the Wogupmeri River, which we also plan to explore in the future. Many carved ritual stone statues of extraordinary interest and beauty also have been removed from this region at the behest of collectors, that are not related to their present inhabitants, and their origin remains a mystery.



**Cave and rock shelter in Awim with archaeological deposits.**

## 6.- The Meaning and Use of these Rock Shelters and Caves

The use and meaning of some of the caves can be explained by gathering ethnographic evidence from their owners the Yimas and Awim people. Although we have no time line for these paintings, they believe that they were made by their ancestors for the same ritual purposes that they still made then until a generation ago.

According to local tradition, one of the sites is the place where all languages emanated and sacred male rituals were carried out inside this cave to enact and celebrate this event. (Ibid) Gorecki and Jones were told that:

*“There was a time when the landscape had not been formed; there were no people; there were no names and no languages. Only two sacred bamboo flutes existed, one male and one female, who inhabited this cave. In the time of creation, they formed the landscape, made people, who then were dumb. To distinguish one group of people from another, these two sacred flutes gave languages to certain people and placed them in the landscape, each speaking a different language”.*

In one of the sacred places explored by Dr. Sullivan, a cave perched high above the Awim settlement also *“bears evidence to a form of blood letting unique to the Awim,” explaining that “until recently, Awim boys would have cane reeds shoved down their penises during initiation. They would hold their hands before the blood that would sprout from this painful act and then press bloody hand prints along the walls of the spirit cave as marks of their bravery.”* (Sullivan 1998)

Dr. Sullivan was told that another cave full of skulls was used as a spirit house (*House Tamberan*). According to Dr. Sullivan the skulls *“were head-hunting trophies, scraped clean after their skin and brains were boiled off and eaten in a kind of warrior soup.”* (Ibid.)



**Trophy heads and funerary urns were kept in caves**

## 7.- Logistics and Personnel



**Nancy Sullivan's house in Yimas Village that will be our head quarters this year**

As Dr. Sullivan's adopted sons are Yimas, and her grandchildren are all heirs to these traditions, Dr. Sullivan has an extremely good relationship with the local people. She has built a house in Yimas Village, which will be the headquarters for this project. Yimas village has been an important trading center for many years, having been part of a very important pre-contact trading network. Yimas was the place where the Lower Arafundi people exported: sago; sago grubs; pandanus; albika; tobacco; betel nut; piper betel; flying fox bone\* needles and saws; bows and arrows; stone axes and adzes; and tree trunks for making canoes. In return the Yimas offered mats, baskets, mosquito bags, fish, kina shells, lime for chewing betel nut, and clay pots that arrived there from the Aibon and Chambri groups. (Foley 1991:13-14, Haberland 1966:57, Roscoe & Telban, 2007)



**Our secondary base camp being built by Awim villagers.**

Dr Sullivan together with the people of Awim, are building a secondary base camp in Awim village, and Dr.Sullivan's staff (mainly Sepik but not necessarily Sepik researchers, male and female) have set off on long foot patrols through the mountains to locate the caves before our fieldwork team arrives next May. So far over 150 new caves and rock shelters have been located which contain paintings, funerary urns, trophy heads and other sacred paraphernalia.

## **8.- Expected Results**

Besides the extraordinary ethnographic information recorded by Dr. Sullivan and her team, we have gathered several other scientists to be able to better understand the archaeology and other environmental concerns surrounding this find. To this effect we are hiring an Ethno-botanist from the University of Papua New Guinea to identify the plants associated with these sites and their use by the Yimas and Awim people as well as a biologist.

Our team hopes that through the recording of these extraordinary rock art and other archaeological features such as; burials and funerary urns plus the ethnographic information obtained by Dr. Sullivan, to be able to explain the late use of these sacred caves and rock shelters by the Yimas and Awim people, as well as describe the ceremonies and beliefs that lead to some of these late paintings. We also hope that with the help of Dr. Bassam Ghaleb PhD from

McGill University who has dated the Chauvet cave in France, to be able to date many of the paintings and thus determine their antiquity. As there is a great similarity in the designs and motives of the Kariwari caves with those found in Kalimantan (Indonesia) Timor Leste and Northern Australia, it is possible that they might have a great antiquity and be contemporary with this artistic tradition that has been dated between 35.000 and 12.500 BP in such places.

We also expect that once the results of this research are known, it will create a greater awareness of these riches and of its importance as a world heritage site, and thus help persuade the local authorities to declare these sites a National Cultural Property, thus creating an effective and comprehensive protection plan to safely manage the sites and protect them from future vandalism, looting, and other disturbances. Mr. Cruz Mayor has generously offered to promote these goals by assisting in the publication of the results of this season's fieldwork, and by promoting the diffusion of the documentary of this Expedition worldwide.

## 9.- Bibliography

Arifin, Karina and Philippe Delanghe 2004. Rock Art in West Papua. Unesco

Edwards, E. 2008. Cuando el Universo era una Isla. (In press)

Foley, W. A. 1991. "The Yimas Language of New Guinea." Stanford: Stanford University Press.

Gorecki, Paul and Rhys Jones. 1987 a. "Rock Art of the Upper Arafundi and Upper Kariwari Rivers, East Sepik Province." Preliminary Report October 15, 1987. Department of Prehistory. Research School of Pacific Studies. Canberra: Australian National University Press (1).

Gorecki Paul and Rhys Jones. 1987 b. "A New Rock Art Province in New Guinea." *Internal Report not for circulation*. Department of Prehistory. Research School of Pacific Studies. Canberra: Australian National University Press.

Haberland , E. 1966. "Zur Ethnographie der Alfendio-Region (Sudlicher Sepik District , Neuguinea)." Jahrbuch des Museum fur Folklorekunde zu Leipzig 23:33-67 Tafeln X – XIV.

Roscoe, Paul and Borut Telban. 2007. "The People of the Lower Arafundi: Tropical foragers of the New Guinea Forest (2)."

Sullivan, N. 1998. "The Awim Caves Air Niugini Airline Paradise Magazine ." 129:23-25.

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[1] Confidential Report to the PNG Government

[2] Confidential Report to the PNG Government