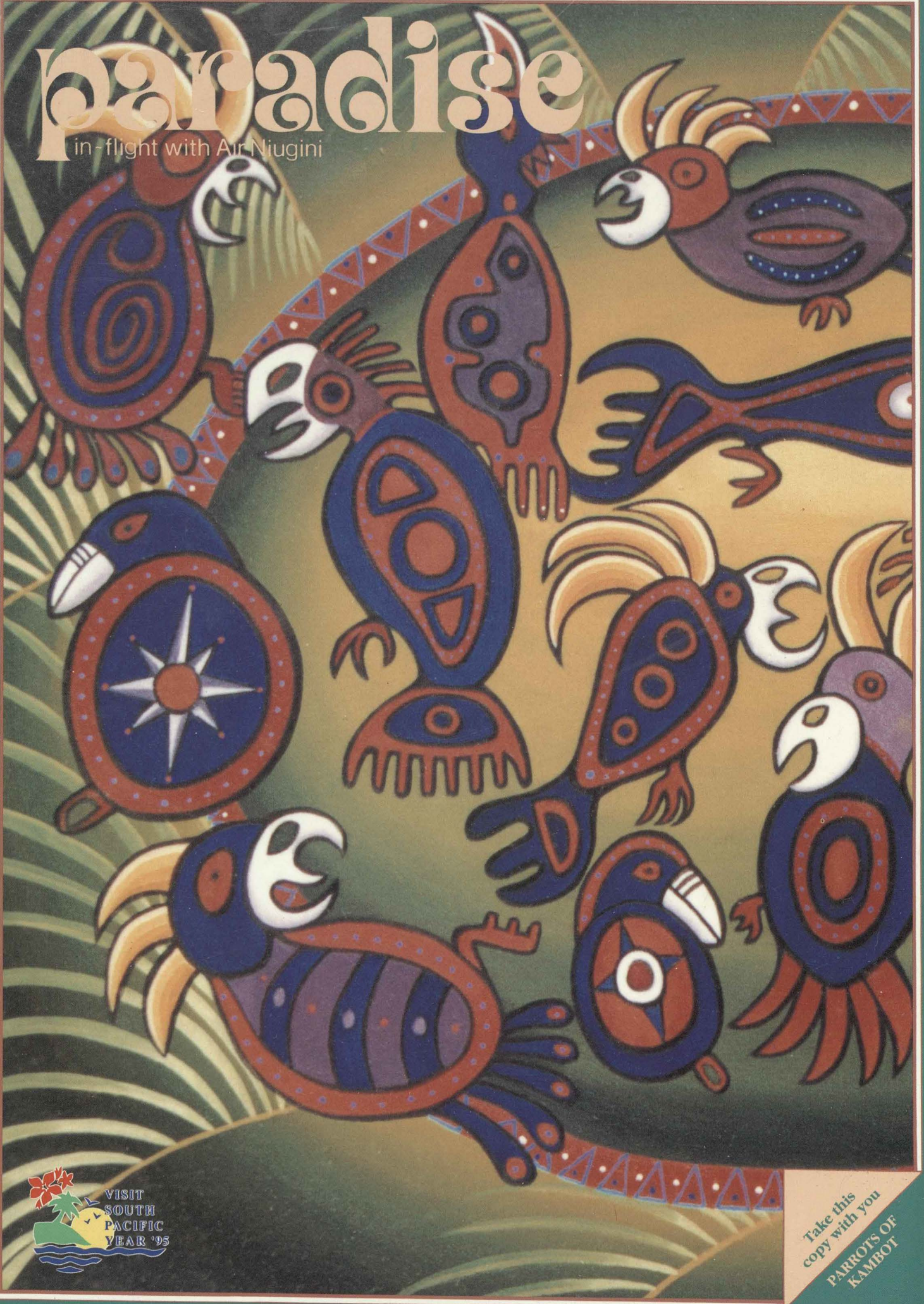


paradise

in-flight with Air Niugini



Take this
copy with you
**PARROTS OF
KAMBOT**



Ela Motors is a major supplier of excavation and loading equipment to a wide range of industries in Papua New Guinea. We offer a comprehensive selection of machines fully supported by Hitachi Genuine Parts and heavy duty servicing facilities through Ela Motors Truck & Equipment Division Nationwide.

For specialist assistance
and full technical specifications
please contact :
Norm Key
Business Development Manager
Ela Motors
Ph 229467 Fax (675) 217268
PO Box 74 Port Moresby NCD
Papua New Guinea



Ela Motors



paradise

No 107 Nov-Dec 1994

Welcome aboard!

Community schools, often built by villagers from bush materials, provide the basic lessons which underpin national education. Some children have to cross hills and rivers each day to attend.

While rocket scientists search for a suitable launch site in our northern islands, craftsmen continue the ancient skill of making stone tools for everyday use. Contributors in this issue of Paradise illustrate the mix of old and new that is such a feature of Papua New Guinea.

Natural beauty, rather than technology, is the area of interest to artist Victor Pascoe and photo-journalist Liz Thompson whose work appears in two of the articles.

Enjoy the magazine and the service of Air Niugini.

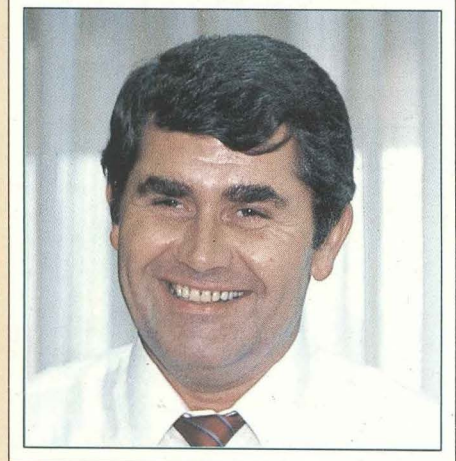
Dieter Seefeld
Chief Executive & General Manager
Air Niugini

IN THIS ISSUE:

- 5 SCHOOL DAYS**
Community classrooms start learning process.
- 11 VICTOR PASCOE**
Birds of paradise inspire painter.
- 17 LANDSCAPES**
Scenic beauty is everywhere in PNG.
- 29 STONE TOOLS OF TODAY**
Sago makers prefer implements of yesteryear.
- 33 RETURN TO KWATO**
Island boatbuilders recall glory days.
- 39 AIRSTRIP FOR THE HAGAHAI**
Air links for an isolated people.
- 47 SPACEPORT PNG**
Equatorial islands in the space race.

Cover: Parrots of Kambot, painting by Victor Pascoe (see page 11). Photograph by Benjamin Cassell.

Paradise is published bi-monthly by Air Niugini, PO Box 7186, Boroko, Papua New Guinea
Tel: (675) 273 415
Fax: (675) 273 380



Dieter Seefeld
Chief Executive & General Manager
Air Niugini

Editor – Geoff McLaughlin MBE
Consultant – Bob Talbot
Editorial – Ross Waby
Art Director – Robin Goodall
Subscriptions – Maggie Worri

Advertising

Papua New Guinea –
c/- The Editor,
Paradise Magazine,
P.O. Box 7186, Boroko,
Australia –
Samuelson Talbot & Partners Pty. Ltd.
4/312 St. Kilda Road,
Melbourne, Vic. 3004
Telephone Melbourne
Tel: (613) 693 1400
Fax: (613) 693 1444

Subscriptions

Annual subscription rates for six issues are: PGK30, US\$30, A\$45
Papua New Guinea subscription K15.
(Payment by international bankdraft).

Printed in Hong Kong by
Progressive Printing Agency,
Block C, 2/F, Kam Ming Yuen
No. 11, Kam Ping Street
North Point
Hong Kong

Tel: (852) 563 0145
Fax: (852) 811 1344

While every care will be taken, no responsibility will be accepted by Air Niugini for the return of manuscripts, photographs or artwork.

No responsibility is accepted by Air Niugini for the accuracy of information contained in the text, illustrations or advertisements.

On business or pleasure, Hertz has your wheels.



Understanding the car rental needs of business and leisure travellers is what Hertz does best! That's why Hertz offers discount opportunities throughout the year on daily, weekly, or monthly rentals.

Plus you'll benefit from the many special services that have helped make **Hertz #1!**

Hertz Credit Card is without doubt the quickest and smoothest way to rent a car. No queues, paperwork and no headaches.

Hertz Chauffeur Drive is available in Port Moresby. Using an air conditioned limousine our 24 hour hassle free, no waiting pick up and drop off, will ensure you are safe in the hands of one of our reliable and experienced chauffeurs.

FOR RESERVATIONS CALL HERTZ ON:

25 4999

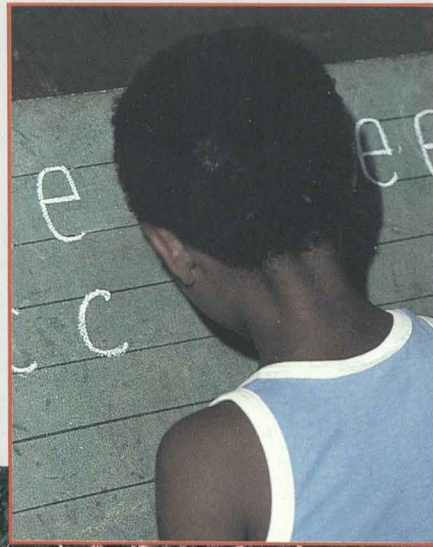
Fax: 25 6985

Hertz

Papua New Guinea's first choice in car rental.

SCHOOL DAYS

Story and photographs
by David Lake



It is 8am at the small community school of Painim and here, as in 2,500 schools all over Papua New Guinea, the same ritual is acted out - assembly has begun. A senior pupil carefully raises the flag to the top of the pole. The students carol in unison the words of the national anthem, 'O arise all you sons of this land', with the vitality that only young children can give. Then follows a hymn, a prayer, and some words from the headmaster. The children stand to attention and, without the slightest hint of disorder, file in single lines into their classrooms.

Top Learning and practising the alphabet.
centre A classroom built of bush materials.
right Small tribal tattoo marks the face of attentive schoolgirl.





Another day of community school has begun for nearly 500,000 children and 13,000 teachers.

Community schools are the primary schools of PNG and, while they arose from a European model, have now become truly Papua New Guinean. They are in fact more Papua New Guinean than any other part of the education system, being fully localised virtually since Independence.

Community school teachers need to be dedicated. It is not an easy job. Often schools are several days' walk from the nearest road or airfield. Although many teachers choose to return to their own villages to serve their own people, others are far away from their families and wontoks. They must cope with class sizes of up to 50 children in crowded classrooms, often without books, paper or pencils. Why do they do it? Look at the children and one can understand.

Children from the villages come to school eager to learn. There are no discipline problems that might be seen in Western schools. At Amele, a school about half an hour from Madang, I talked to the class teacher about some of his Grade 3 pupils who always seemed to be late. "It is not really their fault," he said as we sat on the edge of the hill overlooking the Gogol River below. He

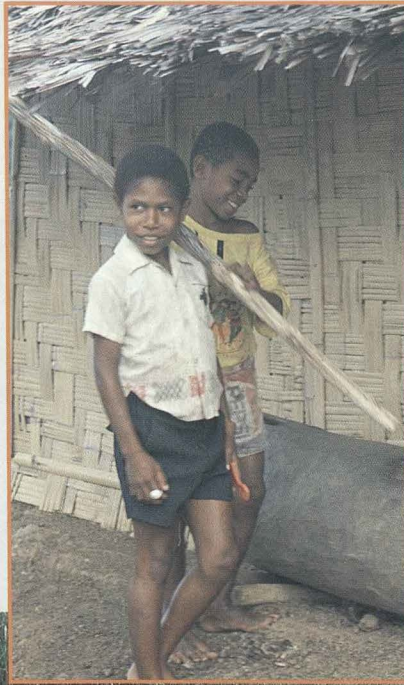


Left Practical agriculture lessons for Beon school pupils planting coffee. **above** Staff room at Beon school near Madang is hut between two classrooms.

pointed across to a village in the distance and explained.

“They start out from their village over there and walk several kilometres to the Gogol River. They get into a canoe and paddle across the river. After heavy rains this can be dangerous from the currents and floating logs. At other times people have reported pukpuk, or crocodiles, in the river. They have to climb the mountain, 200 metres almost straight up, through scrub and loose rocks before they reach school. Then, after a physical education class each afternoon, they repeat the journey in reverse. We have some trouble with them because they are tired in class. Sometimes they fall asleep.”

Classrooms vary from school to school. Some are made of concrete blocks with concrete floors and corrugated iron rooves. Open walls allow the occasional breezes through. More comfortable, and infinitely more pleasing aesthetically are those made of bush materials. Pounded earth floors are softer to sit on. Woven grass or bamboo walls allow the breezes through while still providing shade. The high grass or coconut matted rooves do not rust, are easily replaced and allow the hot tropical air to escape. With the help of termites and insects they last only a few years and then they can be rebuilt.



Bush material buildings are also cheaper, and that is important. Four out of every five Papua New Guineans live in rural areas. Many have no cash income, living as subsistence farmers. These are truly community schools because the community must provide the land, build the school-rooms and build the houses for the teachers. The communities must also provide a board of management to help run the school.

Only when these things are supplied and the government is convinced that there are enough students will teachers be sent to the school.



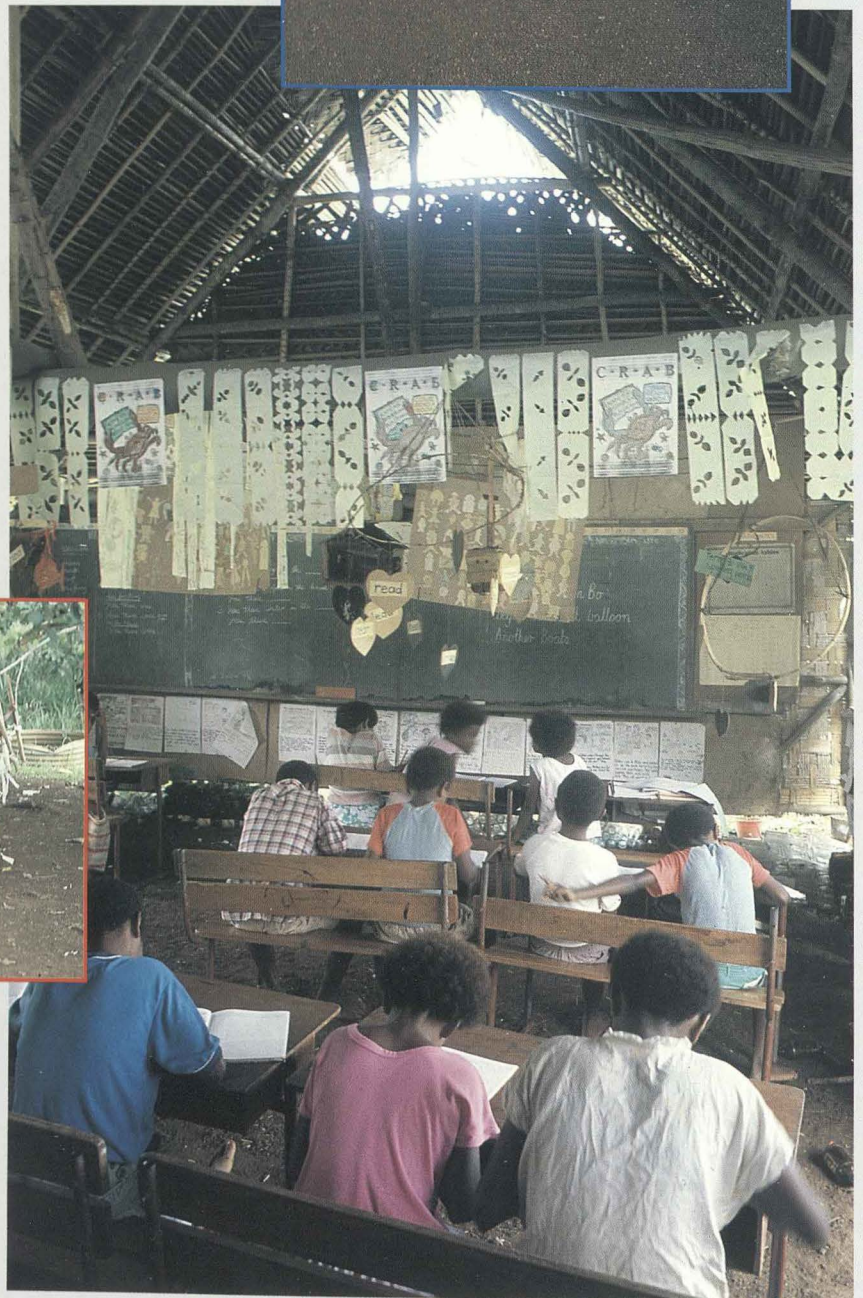
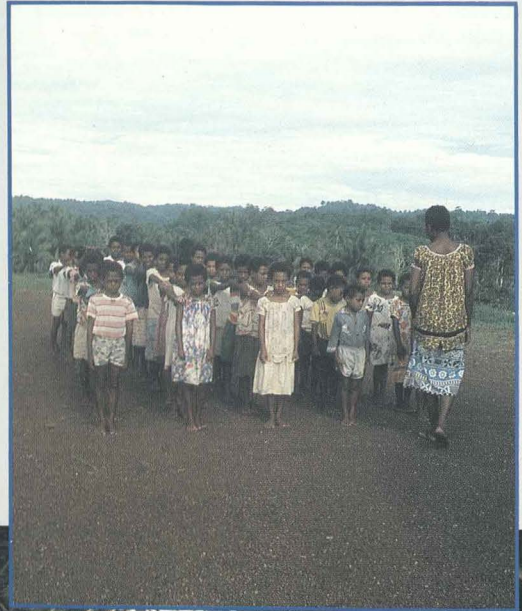
Top Garamut (slit drum) signals start of classes at Painim school. **centre** Coffee plantation takes shape at Beon school. **right** One of many dedicated community school teachers.

Normal subjects are taught, although sometimes these have different emphasis and special difficulties. Mathematics and science are often an additional foreign language to children. Teachers may spend weeks teaching the elements of time and how to read a clock to entire classes who have never seen a watch.

Traditional values are encouraged. Expressive arts takes up more time than any other subject except English in most schools. Schools are often used as centres to stage singsings and end-of-term is always a good reason for a celebration. Although English has always been the official language of instruction, in recent years there has been a lot of interest in pre-schools where early reading and writing skills are taught using the local language.

The community schools are like any other part of PNG. They are adjusting to a changing world but still remain well aware of the long tradition of their country. The enthusiasm of the children for knowledge is a good omen for the future.

Right 8am assembly at Painim school. **below, right** Grade 3 hard at work. **below, left** Expressive arts lesson doubles as practice for end-of-term singsing.



From the mountains to the sea, We've got PNG covered.



NZI **Peace of Mind**

*Providing fire and
general insurance in PNG since 1916.*

NZI
NZI Insurance
Peace of Mind

THE NEW ZEALAND INSURANCE CO. LIMITED

Branches

PORT MORESBY

P O Box 1574,
Port Moresby, NCD.

Defens Haus - Level 3,
Cnr Hunter Street & Champion Parade.

Ph: (ISD 675) 21 2211
Fax: 21 2383

LAE

P O Box 961,
Lae, Morobe.

ANZ Bank Building - 1st Flr,
Central Avenue, Lae.

Ph: (ISD 675) 42 4433
Fax: 42 5715



Investment Corporation of Papua New Guinea

The Investment Corporation was established in 1971 by the National Government.

Papua New Guinea is known worldwide for its mineral wealth, but enormous potential exists for the further development of both primary and secondary industries, particularly for value added products. In keeping with the Government's policy of encouraging investment in Papua New Guinea, the Corporation is keen to identify and implement viable new business projects in conjunction with overseas partners.

Given our unique position and wide experience, the Investment Corporation is well qualified to provide a wide range of services for discerning investors.

Below: Neugini Insurance House located in downtown Port Moresby is owned by the Investment Corporation Fund.



Investors who would like to take advantage of the excellent business opportunities available in Papua New Guinea are invited to contact:-

**The Managing Director
Investment Corporation
of Papua New Guinea
PO Box 155 Port Moresby
PAPUA NEW GUINEA**

Telephone: 675 - 212855

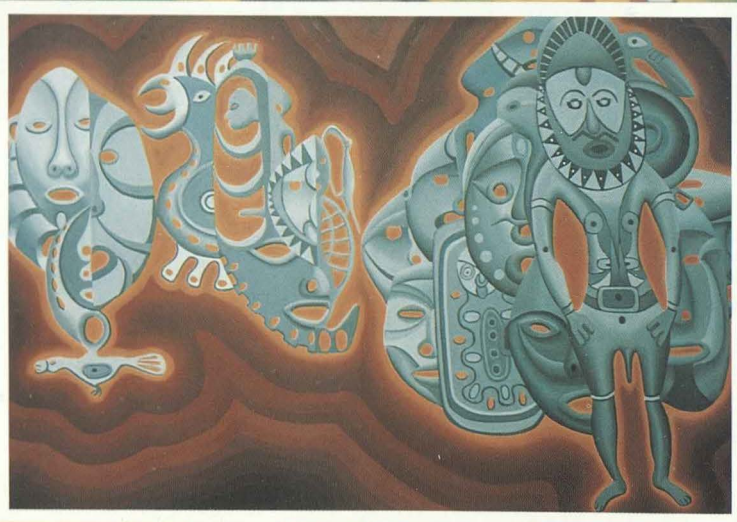
Facsimile: 675 - 211240

VICTOR



Left An abstract of decorated masks, pottery, implements and carvings. The background is detail from an abstract of a Highlands singing.

PASCOE



The talent of Victor Pascoe, an artist of European background and Papua New Guinea citizenship, is becoming highly recognised throughout PNG.

Victor first came to PNG in 1958 working for an airline. Like many expatriates he became interested in PNG's rich culture and gave up conventional work to begin a life of painting, on a small tropical island off the coast of Bougainville Island. His growing collection of paintings rewarded him with an exhibition each year until 1989 - the year the rebels took over Bougainville Island.

Most expatriates immediately evacuated the island upon hearing of the takeover. Ultimately, and reluctantly, Victor was also forced to leave. With a little help from friends, he chose to do some goldmining in Wau, once thought the goldmining capital of the world. But instead of gold, the real prize he discovered in Wau was eight species of bird of paradise. These birds have become a major theme of his painting. The birds of paradise that dwell in the Highlands surrounding Wau have become an inspiration.

Today Victor works, lives and paints in Madang, managing the Madang Lodge. His memories of the birds of paradise and a vast

Top Maprik images. centre Sepik fishhooks.



part of PNG's culture are coming to life in his paintings. These paintings have rewarded him with his own calendar for 1993 and 1994 and an exhibition of his work in Sydney, Australia, this year.

Tourists and artists can discover much of PNG's culture hidden within Victor's semi-abstract theme. To Victor, this theme represents an important part of PNG's culture that he has discovered for himself, and for which he has developed a passion. Yet he says that once he has completed a work, he feels no need to look at it again.

As I sit in Victor's living room and gaze over the amount of semi-abstract

paintings that cover the wall I ask if he has a favorite: "No, if you have one favorite you tend to make all your painting the same I think."

The variety of paintings in his Sepik theme include Sepik masks, kundu drums, semi-abstract images of native animals and tribesmen in full dress, spears and other weapons, clay pots and more – a rich and varied source of inspiration.

To study Victor's style of painting is to see a uniqueness to his work, a certain glow behind his subject matter – yet he modestly denies that he has yet found a style of his own: "I tend to think it takes



Top Bainings fire dance. **left** Victor Pascoe painting island motif.

years to develop a style.”

Victor's bird of paradise theme adopts a more realistic style. Each painting is almost photographic, with a beautiful background showing off the lush rainforest of the Highlands. Looking at the feathers, each formed by a separate brushstroke, one can appreciate the skill and time required for such artwork. The true colors stand out of the painting as the bird does in its natural habitat. This native bird, the national symbol of PNG, is considered one of PNG's most beautiful creatures. Since the day Victor came close to these birds in Wau, he says he could not resist such beauty, it had to be painted.

Victor is without doubt one of PNG's most talented painters, sure to gain recognition from artists and collectors all over the world. Already, a collector from Germany has viewed Victor's paintings and offered him an exhibition of his work in Munich, by 1997. After sending calendars to art galleries in the US, Victor has also had offers to exhibit his work in Chicago and New York for next year. And now the PNG Government has asked Victor to paint some native butterflies for a series of new stamps.

With a lot of work to do, Victor paints every day, turning his dreams into reality.



Centre Raggiana birds of paradise. left *Astrapia* birds of paradise.

In these times,
people want more for their money.
Why not send them to a hotel,
that's had this philosophy all along?



Coast Watchers Hotel



Smugglers Inn Resort

MADANG

MOUNT HAGEN



Highlander Hotel



Melanesian Hotel



Huon Gulf Lodge

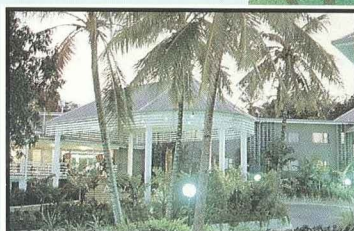
LAE

POPONDETTA



Lamington Lodge

PORT MORESBY



Gateway Hotel

FLAG
INTERNATIONAL
HOTELS · INNS · RESORTS · APARTMENTS

Coral Sea Hotels

PO Box 1215, Boroko N.C.D., Papua New Guinea

CENTRAL RESERVATIONS PHONE (675) 25 2612



Aviation
Papua New Guinea.



Shell Papua New Guinea Pty. Ltd.



Story and photographs
by Liz Thompson

While Papua New Guinea is renowned for its painted human faces, equally beautiful and diverse are the many faces of its landscapes. Travellers imagine dripping rainforests filled with tropical birds and lush ferns when they think of PNG. The country has many such environs, where waterfalls spill, flowing into crystal rivers, creeks or water holes on which leaves of the forest trees fall. Colored with abundant vivid flowers, these green jungles are filled with nuts, fruits, seeds, birds, insects, butterflies, lichen, mosses and ferns.

A palm fringed lagoon on the coast of New Ireland. New Ireland is the long narrow island north of New Britain. For most of its length the island is only six to 10km wide with a high spine falling straight to the sea.

PNG's mountains, plains and coastal areas also have abundant natural beauty, not to mention the extraordinary underwater landscape available to the scuba diver. The outer islands and coastal areas of mainland PNG have sweeping white sand beaches fringed with coconut palms. The beaches are swept by turquoise waters, many of which are home to superb coral reefs and numerous tropical fish.

The far plains of Western Province are alive with animals and birds. Rusa deer introduced by the Dutch, and hordes of wallabies roam freely, and the cool, deep rivers are filled with barramundi. In the East Sepik province, white egrets fly across the beautiful Chambri lakes, and pink water lilies float on tranquil surfaces. These lakes and the surrounding flood plains turn into a stunning light display at sunset as the still waters reflect the colored sky. Villages stretch along the shores of the Sepik River on which villagers paddle their dugout canoes.

Mountain ranges offer majestic views. The Highlands of PNG are a series of valleys and intervening mountains divided into five provinces. Mount Wilhelm in Chimbu province stands at 4,800 metres. Despite the rugged terrain of this area, the people have transformed the steep landscape into a patchwork of tiny gardens. Deep valleys, gorges, caves, rock paintings, mountain ranges, and exotic flora and fauna can all be found in this region.

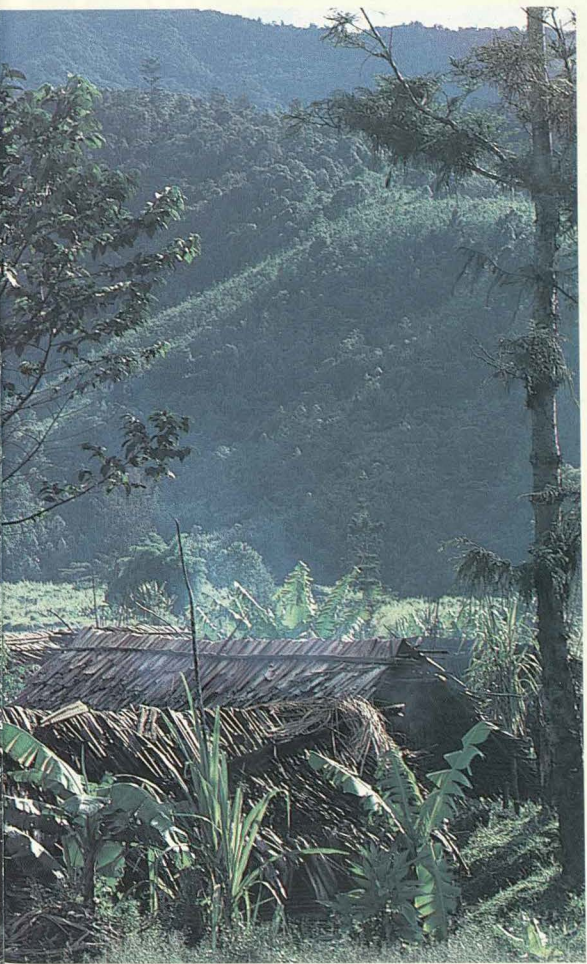
PNG is rich in cultural diversity and rich in natural beauty.



Traditional village hut at Woitape, a Highlands destination about an hour's flight from Moresby, province of the capital city. With a plentiful supply of bush materials at hand, villagers equipped with a bush knife dwellings as they are needed. As the fertility of small garden plots diminishes over the years, some vill



Children playing in traditional wooden canoe on the Cross Meri River in the East Sepik Province. Along the vast network of natural waterways of the region, canoes allow villagers to range far and wide from their home base. Paddlers stand, in contrast to the kneeling style of South Pacific Islanders and the sitting style of North Americans.



ing a cool and green alternative to the often dry heat
e or machete can quickly build or reconstruct
ges are abandoned and recreated in new locations.



An example of the beauty of a Sepik River night, when the colors of the evening sky are reflected in the still waters of the river, disturbed only by the late travellers in their canoes. Villagers fishing or hunting for crocodile often venture out at night, sometimes lighting their way with torches made from dried and powdered tree gum wrapped in leaves. Traditional torches are giving way however to oil-fired hurricane lamps and battery-powered flashlights.



Birds in flight above the Cross Meri river in the East Sepik Province. Cross Meri is a tributary of the Sepik, draining part of the huge catchment area. The abundant birdlife populating the banks, lives well off the aquatic creatures which make their homes in the many waterways.



TOBA MOTORS

NEW GUINEA MOTORS

We're not just about selling vehicles. We are about service, customer satisfaction and quality in everything we do and we strive continually to raise industry standards. We are not the biggest but we want to be the best. That is our goal. We operate in nine centres in PNG offering new vehicles from the smallest runabout to the heaviest specialist truck. Our used vehicles are prepared in our workshops and backed by our reputation as PNG's number one used car dealer. We offer service and panel shop facilities second to none, that are supported by a countrywide distribution network for spare parts.

Above all this we have our people.

"They are our true assets."

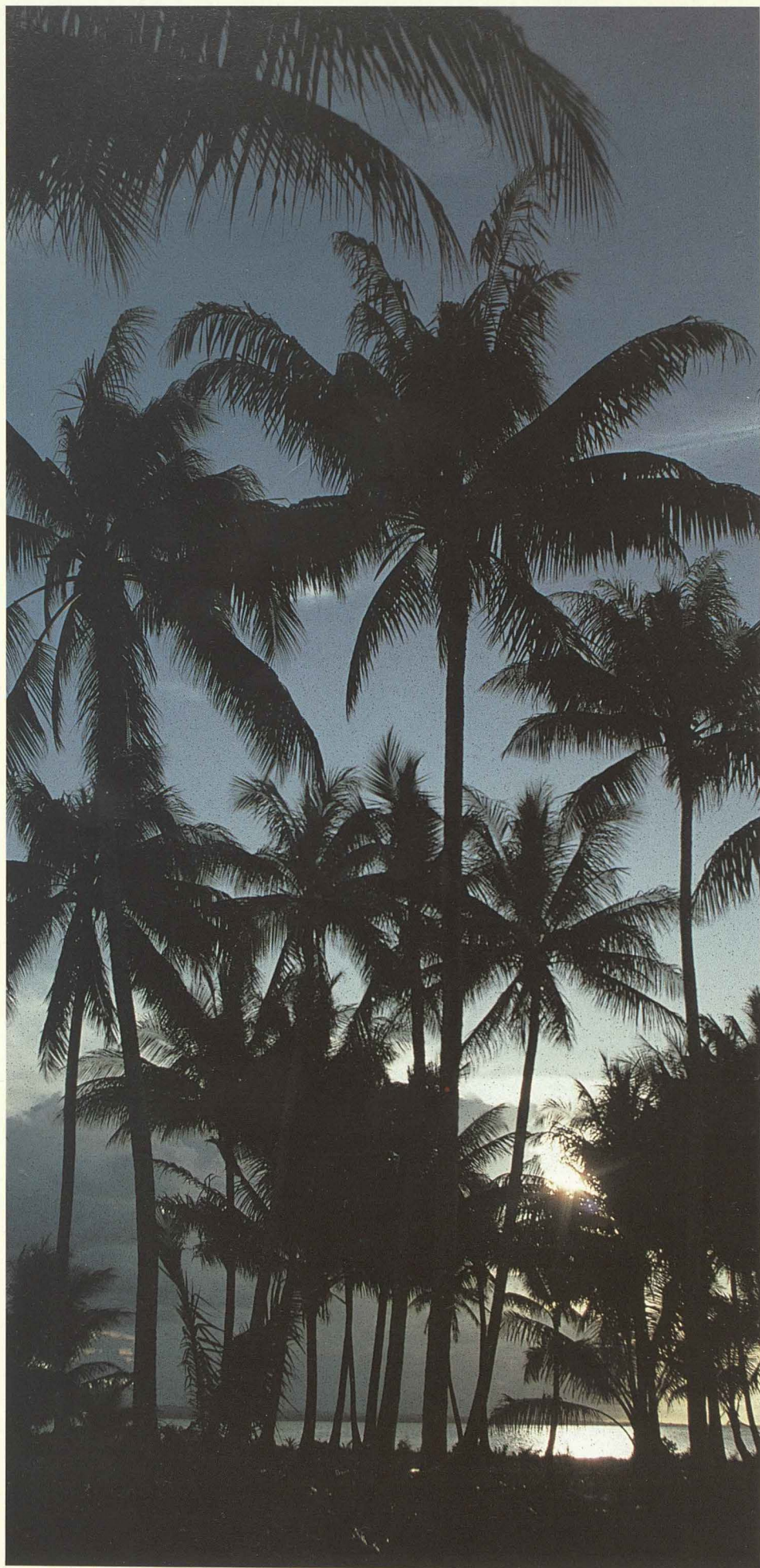


SAVI NGM 0204

 **MITSUBISHI**



ISUZU



Palm trees silhouetted against the evening sky dominate the coastal areas of much of PNG. Only in the mangroves are palm trees noticeable by their absence. The naturally seeded palms have been augmented in many places by plantations which have supplied the copra and palm oil industries since Europeans settled in PNG. Coconut palms, whose nuts travel far on sea currents, have often been the first stabilising plants on new islands formed on top of coral reefs or on the top of undersea volcanoes poking through the ocean's surface.



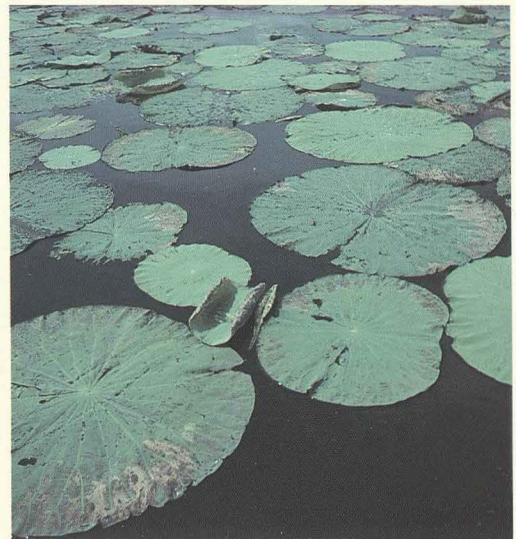
A stunning head of red coral, one of the many extraordinary underwater sights available in PNG. Reefs all around PNG are astounding for the vigor of their coral growth, the variety of marine life they harbor and the incredible clarity of the water. Except near the mouths of rivers where sediment is disgorged, the water's crystal clarity and the health of the reefs are enhanced by the lack of fertilisers and other man-made effluents in the runoff from the land.



Rolling hills of the Papua New Guinea Highlands. The nation's uplands are characterised by soaring peaks which dominate the many mountain ranges that run the length of the country. The Highlands are a natural divide between north and south, so that distinctly Papuan (south) and New Guinea (north) cultures developed over millennia. The steep hills and ravines of the Highlands further separated the tribes and clans who lived there. So complete was the separation that some 700 different languages have been identified in PNG, about one-third of the world's total.



One of the sweeping white beaches to be found on Tsoi Island, one of a series of islands which sit off the New Ireland coast. Development threatens some of the pristine perfection of the Bismarck Archipelago islands, gold having been found on several which are marked for mining.



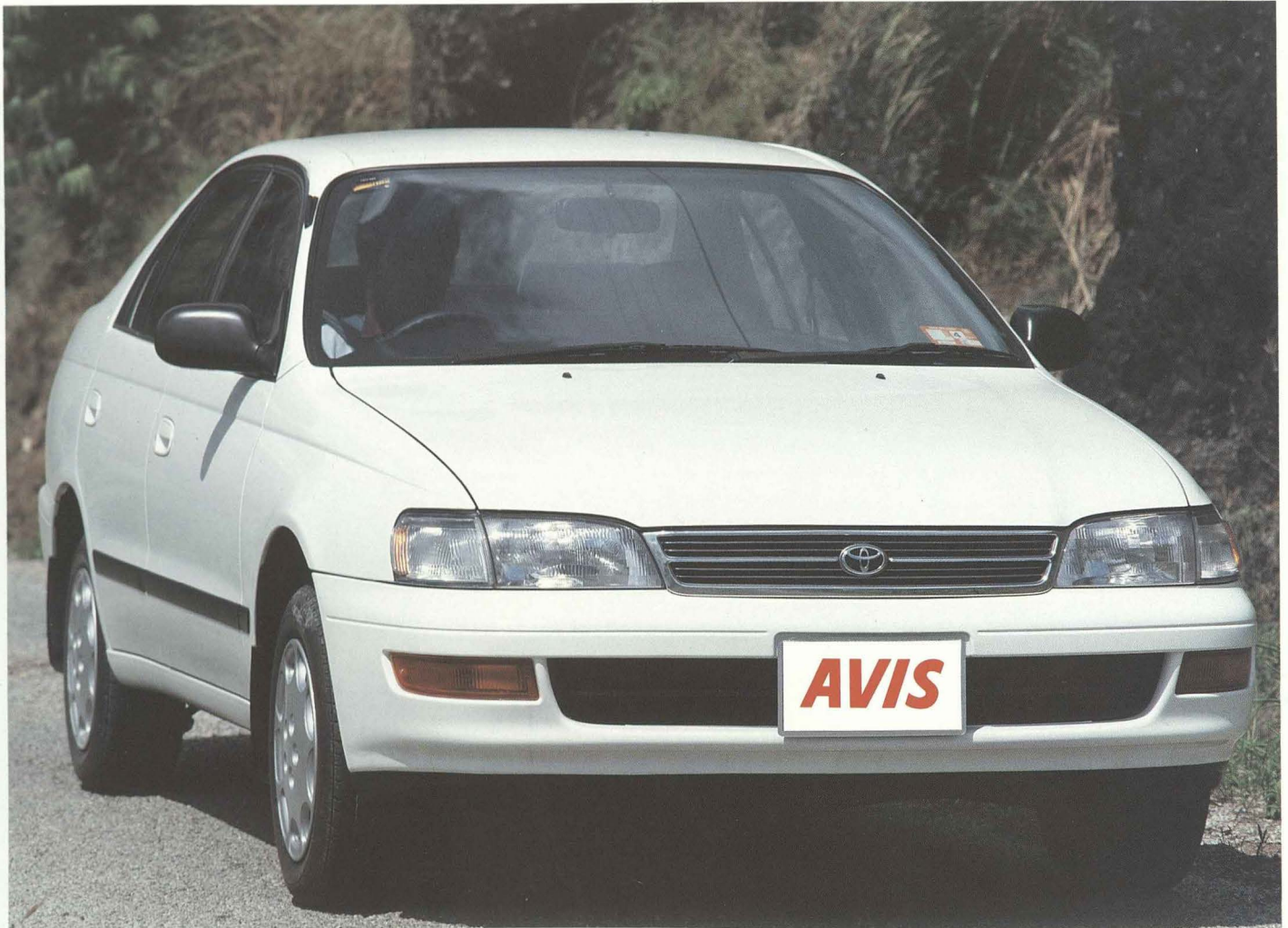
Floating garden of water lily leaves floating on a backwater tributary of the lower Sepik River, East Sepik Province. The Sepik River is one of the largest rivers in the world in terms of annual water flow. Areas bounded by the river and its lower catchments are where most of the PNG's carvings are created. It is a region rich in cultural and artistic substance. Several luxurious live-aboard tour boats travel up and down the Sepik, or alternatively visitors can travel in traditional style in wooden canoes.



KARA

PHONE : (675)25 6091 FAX : (675)25 0393

AVIS - PAPUA NEW GUINEA (1974 - 1994)



AVIS have been renting cars in Papua New Guinea for twenty years - a long time in our business and in some quite interesting places....

To do that, has meant striving harder to ensure we deliver the most reliable, trusted service available.

Fleeting current model quality vehicles is just one of the ways AVIS does that.

The other is trained and committed staff who make sure the vehicle is clean and then welcome you with a smile.

Happy renting in 1994....

AVIS
We try harder.

FOR RESERVATIONS CALL 25 8299 OR FAX 25 3767



Air Niugini

International routes



MONGOLIA

GOBI DESERT

Vladivostok

Hokkaido

SEA OF JAPAN

NORTH KOREA

JAPAN

Seoul

Honshu

SOUTH KOREA

Osaka

Tokyo

YELLOW SEA

EAST CHINA SEA

SEA

Taipei

TAIWAN

NORTH PACIFIC OCEAN

PACIFIC OCEAN

OCEAN

CHINA

Beijing

Xi'an

Shanghai

LAOS

Hanoi

VIETNAM

THAILAND

CAMBODIA

Phnom Penh

Gulf of Thailand

Ho Chi Min City

Sumatra

Malaysia

SINGAPORE

Jakarta

INDONESIA

JAVA SEA

Bali

Java

BRUNEI

Borneo

KALIMANTAN

Balikpapan

CELEBES SEA

Celebes

Moluccas

BANDA SEA

IRIAN JAYA

Timor

ARAFURA SEA

Torres Strait

TIMOR SEA

Darwin

Gulf of Carpentaria

Broome

NORTHERN TERRITORY

Alice Springs

WESTERN AUSTRALIA

GIBSON DESERT

Perth

NULLARBOR PLAIN

Kalgoorlie

GREAT AUSTRALIAN BIGHT

Adelaide

QUEENSLAND

Wales

NEW SOUTH WALES

Sydney

Wales

Canberra

VICTORIA

Melbourne

TASMANIA

Hobart

King Island

Flinders Island

TASMAN SEA

NEW ZEALAND

Auckland

North Island

Wellington

South Island

Stewart Island

SOUTHERN OCEAN

PHILIPPINE SEA

Manila

PHILIPPINES

Luzon

Mindanao

REPUBLIC OF PALAU

Koror

Halmahera

Biak

Jayapura

Vanimo

Mount Hagen

PAPUA NEW GUINEA

Port Moresby

Cairns

Townsville

Rockhampton

Brisbane

Sydney

Wales

Canberra

Melbourne

Hobart

King Island

Flinders Island

TASMAN SEA

NEW ZEALAND

Auckland

North Island

Wellington

South Island

Stewart Island

SOUTHERN OCEAN

COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS

Saipan

MARIANA ISLANDS

Guam

FEDERATED STATES OF MICRONESIA

Caroline Islands

REPUBLIC OF THE MARSHALL ISLANDS

Majuro

NAURU

Yaren

SOLOMON ISLANDS

Honiara

Bougainville

SOLOMON SEA

New Ireland

Rabaul

Manus Island

Vanuatu

Port Vila

New Caledonia

Noumea

Norfolk Island

Lord Howe Island

TASMAN SEA

NEW ZEALAND

Auckland

North Island

Wellington

South Island

Stewart Island

SOUTHERN OCEAN

SOUTHERN OCEAN

SOUTHERN OCEAN

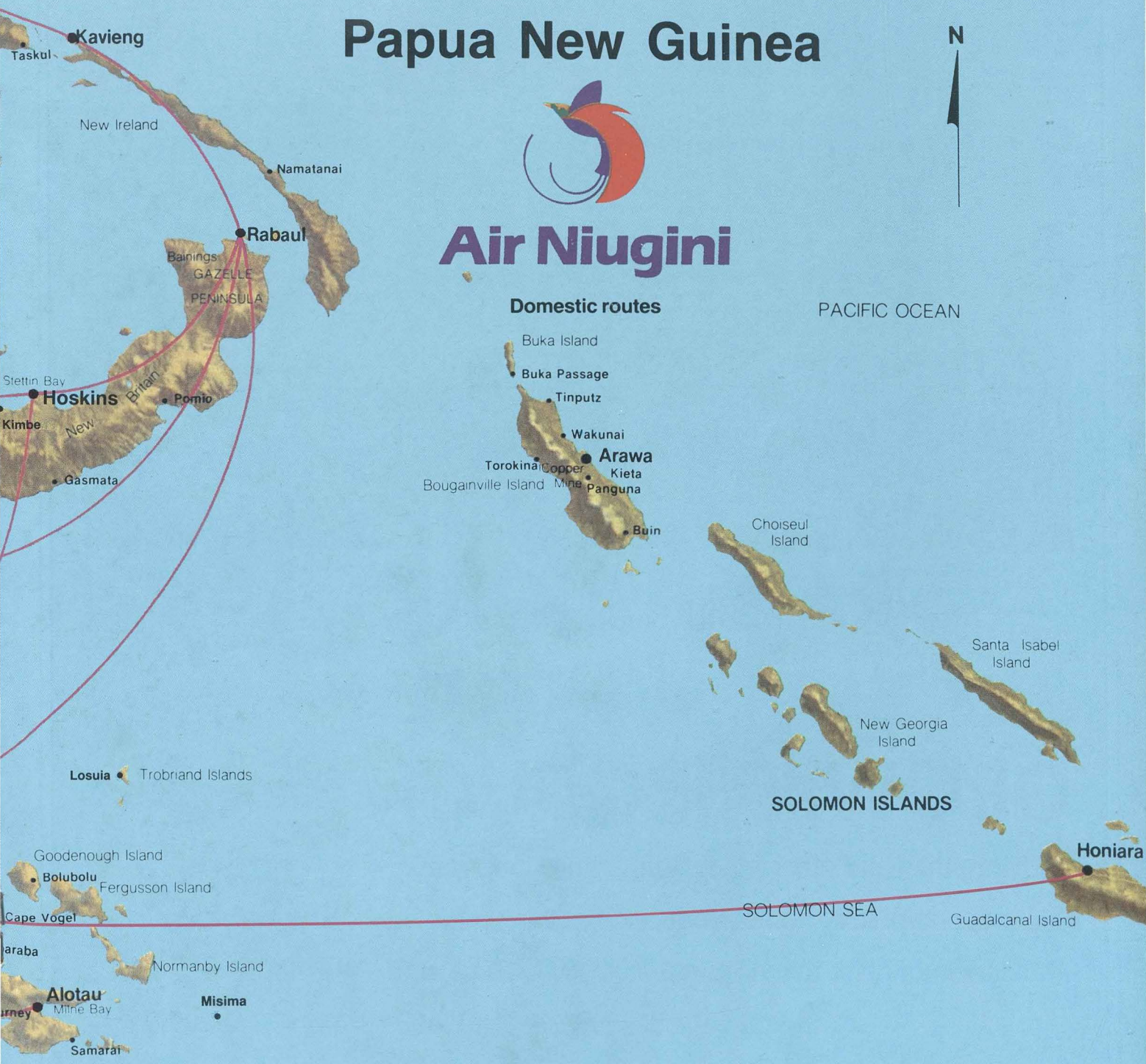


as
up

Papua New Guinea



Air Niugini



Domestic routes

PACIFIC OCEAN

- Buka Island
- Buka Passage
- Tinputz
- Wakunai
- Arawa
- Torokina
- Copper
- Kieta
- Panguna
- Buin

- Choiseul Island
- Santa Isabel Island
- New Georgia Island

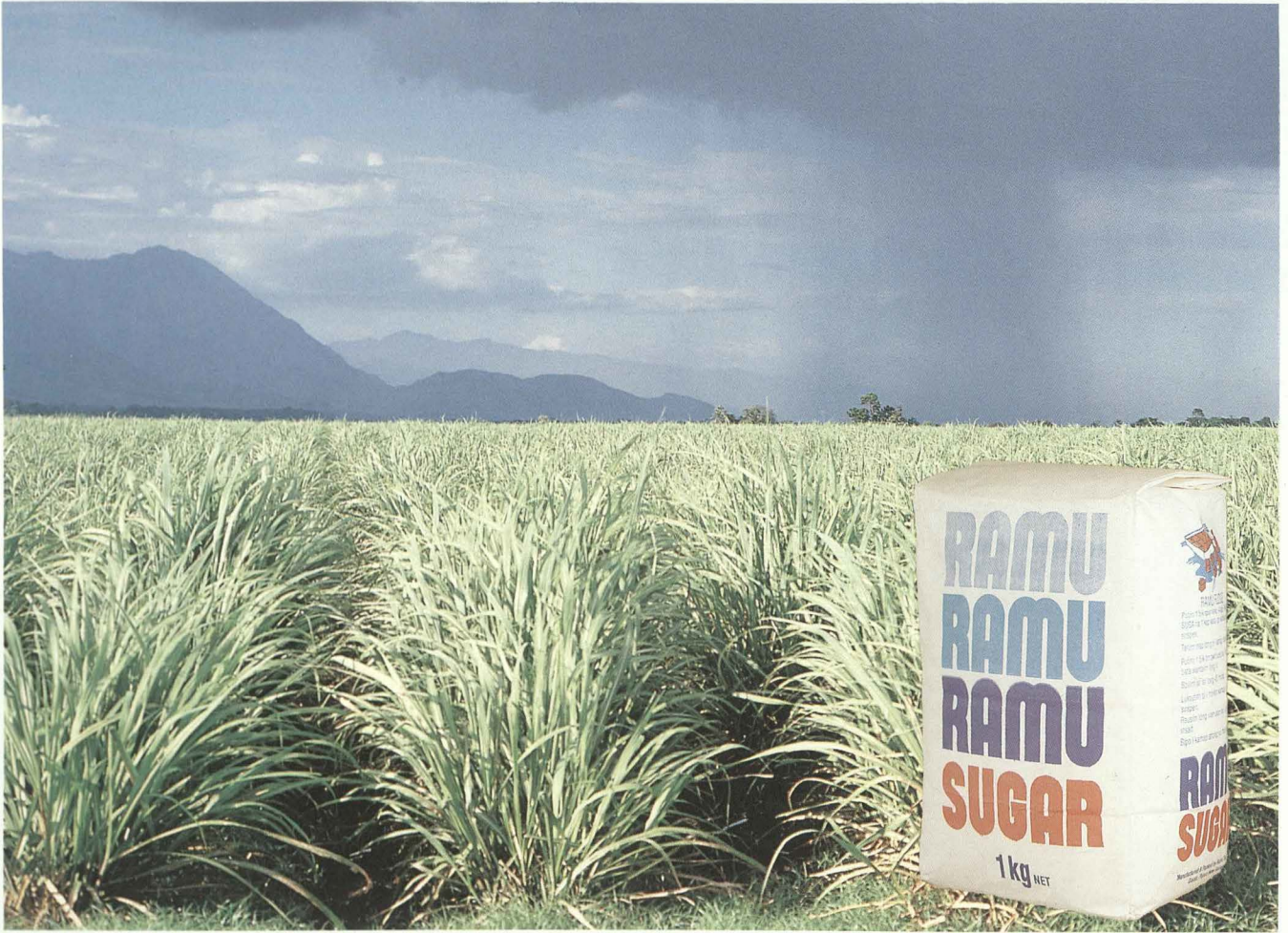
SOLOMON ISLANDS

SOLOMON SEA

Guadalcanal Island

Honiara

- Taskul
- Kavieng
- New Ireland
- Namatanai
- Rabaul
- Bainings
- GAZELLE PENINSULA
- Stettin Bay
- Hoskins
- Kimbe
- Pomio
- New Britain
- Gasmata
- Losuia
- Trobriand Islands
- Goodenough Island
- Bolubolu
- Fergusson Island
- Cape Vogel
- araba
- Normanby Island
- Alotau
- Milne Bay
- Misima
- Samarai



RAMU SUGAR A HOME GROWN PRODUCT

More than any other manufactured product, Ramu Sugar is completely home produced. Grown in PNG, from a plant that originated in PNG, processed in PNG, packed and sold in PNG.
~ and abroad.



Ramu Sugar - over a decade of
downstream processing





a Stone Tools

OF TODAY

Story by Mark Busse
Photographs by Susan Turner

Papua New Guinea is often thought of as a place where only 100 years ago people lived in the Stone Age. Today, stone tools are largely a thing of the past. But in the Upper Kikori River area of Gulf Province, craftsmen continue to make stone tools that are used by women both there and in the Lake Kutubu area to the north, to make sago.

With funding from the Kutubu Joint Venture, we made several trips to the Lake Kutubu and Kikori areas of Southern Highlands and Gulf Provinces to gather information for a book on the people of those areas who were being affected by the Kutubu Project, Papua New Guinea's first producing oil project.

Among the topics we investigated was sago, which is the staple food throughout the Kutubu and Kikori areas and much of lowland PNG. Sago is made from the pith of a palm which grows in the freshwater swamps from sea level to about 1,000 metres. Different groups of people process sago in different ways, but the basic task is to remove the starch from the palm pith by washing it with water. Before this can be done, the palm must be cut down, the bark removed, and the pith chopped or shaved into small pieces.

What struck us during our research is that, despite more than 50 years of Western contact, almost all the women in the mountains around Lake Kutubu still used stone tools to chop sago pith before washing it. Not only did they continue to use stone sago choppers, but the

Above, left Sago-maker chopping pith with hafted chert tool.

particular type of stone used in these implements – a hard, flint-like quartz called chert – reached Lake Kutubu through trade networks that extended over 50 kilometres from the source of the chert near the village of Baina in the upper Kikori.

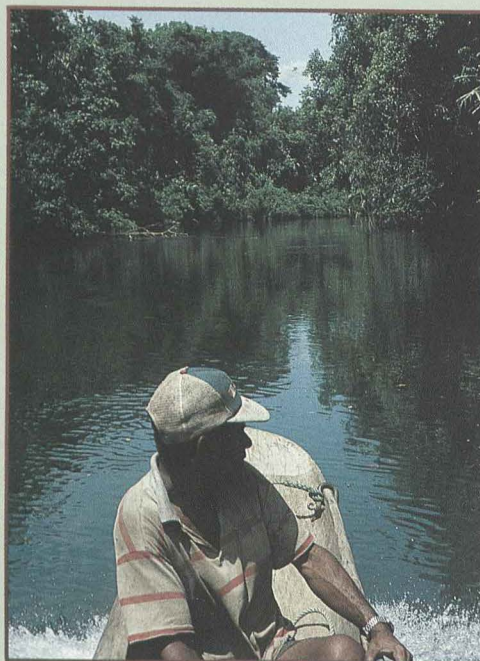
Chert is formed when impurities in limestone are subjected to pressure deep underground. The chert used for sago choppers in the Kutubu and Kikori areas comes from limestone outcroppings in the rainforest of the Kikori flood plain. Embedded in these outcroppings are small nodules that look like smooth river stones. They have a soft outer layer, and inside is hard, brittle, stone that breaks into sharp flakes when properly hit.

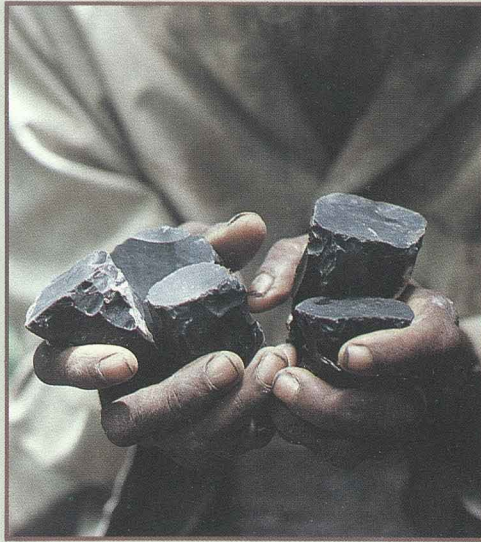
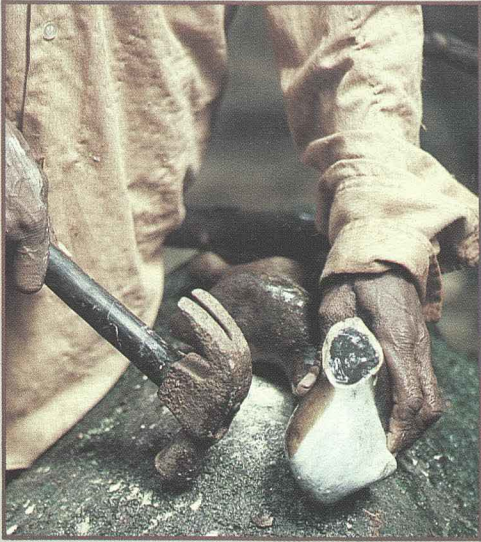
Only a few men in the Upper Kikori know how to make chert sago choppers. First, a nodule is separated from the surrounding limestone by firmly tapping it with a blunt object such as a hammer or the back of an axe. Then the nodule is struck to expose a roughly circular, slightly concave surface which will eventually become the working surface of the sago chopper. The edges of this surface are then hit with a hard, heavy object such as another piece of chert or a large nail in order to produce cutting edges. The final step is to smooth the tapered sides, where the stone will be hafted, by repeatedly hitting two nearly completed choppers together.

The people of Baina believe that the chert nodules are alive and actually grow in the limestone outcroppings rather than that the limestone erodes around them. They also say that people must act respectfully around the quarries or the chert will stop growing.

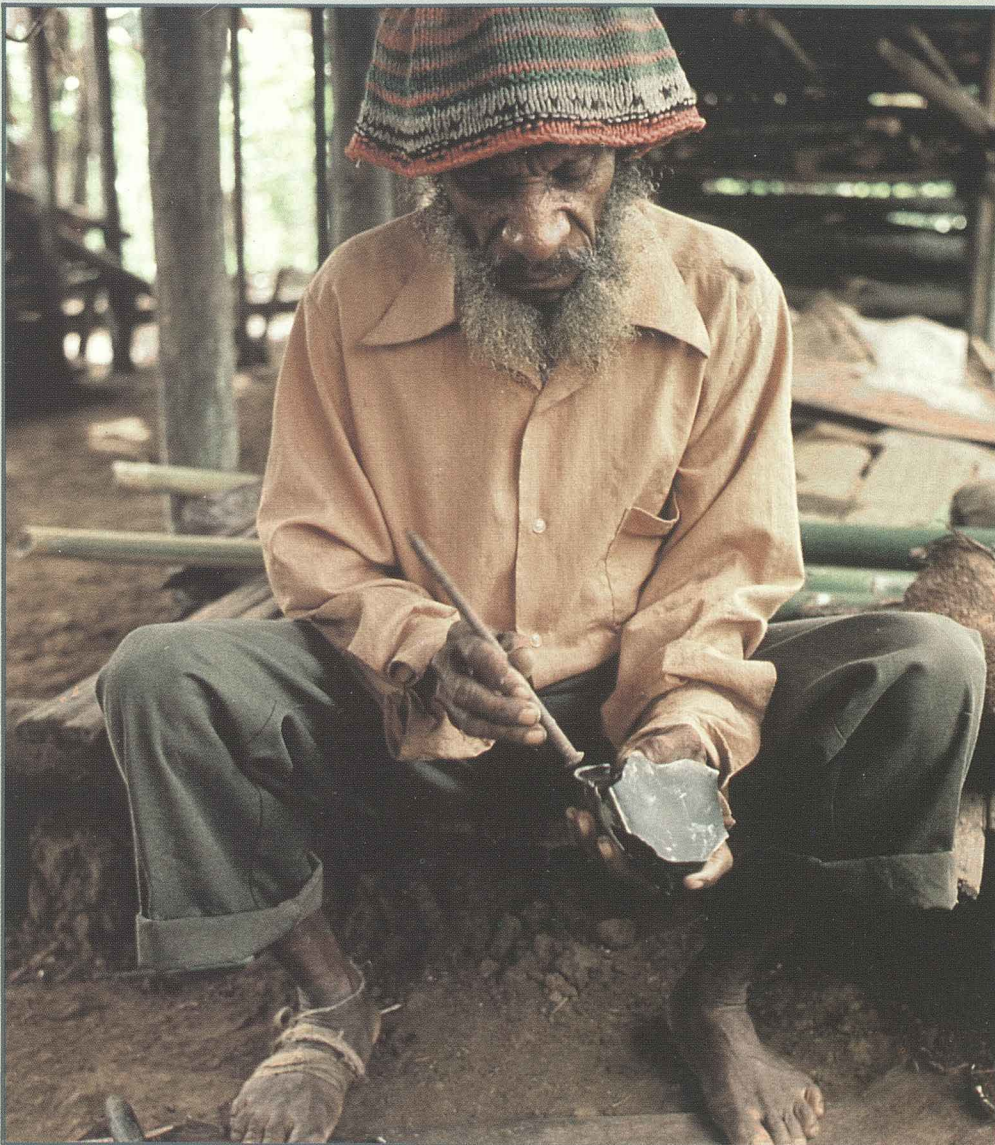


Above Welo Sisila, of Baina village, shapes a chert nodule into a chopper. **below, left** Travelling up a tributary of the Kikori River to a chert site. **below, right** Dense lowland rainforest and limestone near a chert source.





Above, left Chopper-maker Welo Sisila uses hammer to speed the shaping process. **above, right** Finished choppers. **below** Shaping chert into choppers back at the village.



They harvest two types of chert: black or grey which they call buri, and milky colored which they call tor. The stone called tor is harder, but less common. According to legend, the two types are sisters with buri being the younger and tor, which lasts longer, the elder.

The Baina people make sago choppers for their own use and to trade. Both they and the Foi - and Fasu - speaking people who live near Lake Kutubu call these worked stone tools was or wasa. Traditionally, Foi and Fasu men from villages relatively close to Baina, took sago baskets, pearl shells, strings of cowrie shells, and tobacco to Baina where they exchanged those items for chert sago choppers, shells, and, more recently, steel tools such as bush knives and axes.

The sago choppers from Baina were used either by the traders themselves or retraded to people closer to Lake Kutubu in exchange for items from the Highlands proper. Today, the trade in sago choppers continues, although cash is now an important part of the trade system. In Baina, small sago chopping stones are sold for K5 or four or five strings of cowries, while large stones bring K10, five to seven strings of cowries, or a pearl shell.

In the Kutubu and Upper Kikori areas, the worked stones become part of a tool consisting of two pieces of wood tied together, and a stone kept in place with a piece of cane rope. Despite a long period of Western contact and recent changes stemming from the Kutubu Oil Project, this stone tool continues to be the instrument of choice for chopping sago pith because of its durability and its razor-sharp cutting edges.

LAE INTERNATIONAL HOTEL



Lae's Most Prestigious
International Hotel

SOME FIRST IMPRESSIONS LAST FOREVER



AT LAE INTERNATIONAL HOTEL

we know we make a good first
impression but to make it last
forever takes a lot more!

It takes:

More than — almost nine acres of tropical
gardens.

More than — first class standards and service.

More than — three superb restaurants.

More than — convention facilities for 500.

More than — a pool, tennis court, aerobics,
gymnasium and sauna.

It Takes Style!

**AND THAT'S WHY
YOUR FIRST IMPRESSION
WILL LAST FOREVER**

For reservations and further
information, please contact:

Lae International Hotel

P.O. Box 2774, Lae,

Papua New Guinea

Telephone: (675) 42 2000

Facsimile: (675) 42 2534

RETURN TO

Kwato

Story and photographs by Keith Briggs

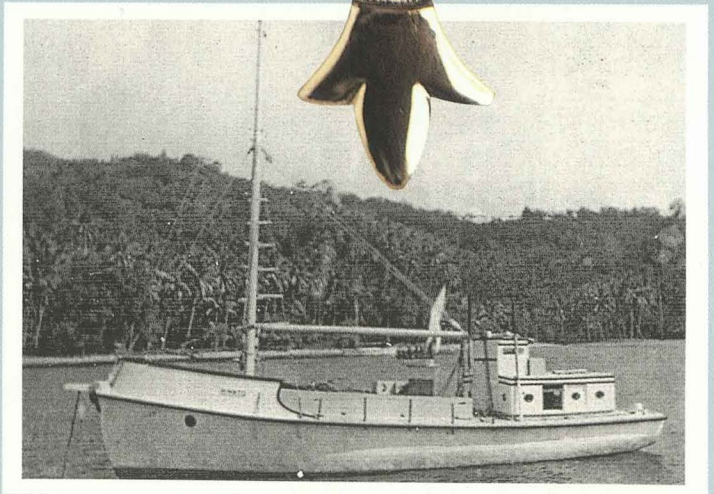
There's Kwato!" someone shouted, as M.V. Arona rounded the south eastern tip of PNG. Having travelled almost the full length of Milne Bay from Alotau we were entering the China Strait. Samarai, Logia, Sariba, Kwato and other islands materialised out of the hazy, blurred band of the horizon.

A group of elderly but still vigorous former Kwato missionaries were on the Arona, returning from the Charles Abel Centenary celebrations. Most were in their mid-eighties, including Dr Berkeley Vaughan and Arthur Swinfield. A son, Sir Cecil, a daughter and a daughter-in-law of Charles Abel, the founder of the work, were also on board (Sir Cecil has since died in Brisbane, Australia, aged 91). Adult offspring, grandchildren and great grandchildren accompanied most of them on this memorable pilgrimage. Geoff Baskett, who first went to work at Kwato as a lad of 17, and who has lived ever since in PNG until his retirement, was also on the Arona. He hummed the tune of the well known, lovely song he composed, Islands and Mountains, as the vessel made its way between the features that inspired the composition.

The Rev Charles Abel landed on Kwato on 18 August, 1891. His vision was

to combine Christian teaching with practical training in carpentry, boat building, nursing, engineering, cooking, home making and other useful skills. As an Englishman, he had a passion for cricket and Kwato is reputed to be the first place in PNG where it was played. Someone said one of his criteria in the selection of a place to establish his work was a suitable area on which a cricket pitch could be made! Kwato did not have such a spot but the fine cricket ground that became famous was created by hard work filling in a swamp with rocks and soil. The Kwato 11 played against expatriate teams in Port Moresby with notable successes.

Top OBE awarded to Garoinedi Tariowai, nursing leader. **right** Kwato I could carry 200 bags of copra. **below** Kwato Island pioneers cemetery.





Many people became Christians through the faith and genuine brotherliness of the mission family. They in turn spread their teaching far and wide around the eastern tip and along the Gulf. Governor Sir Hubert Murray told Cecil Abel that people's acceptance of the gospels put an end to the head hunting and

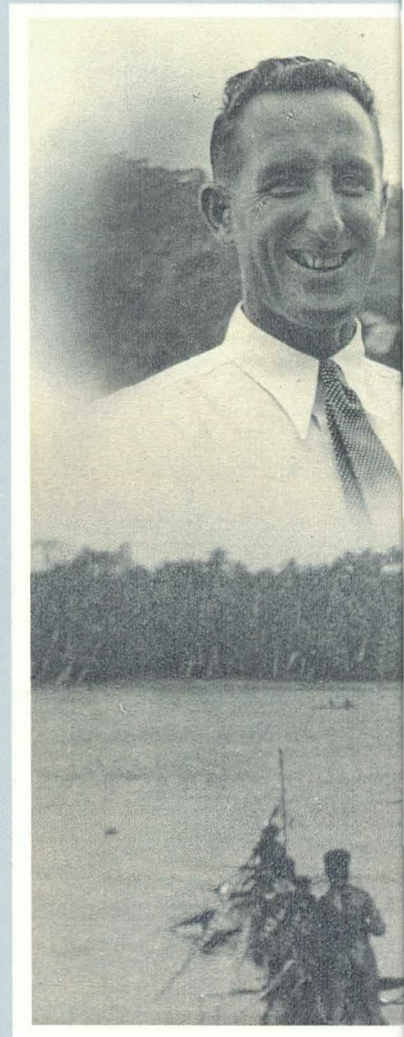
cannibalism that the government was powerless to curb. This practical faith became known throughout the country as the Kwato Way.

Dr Berkeley Vaughan had a vision to train girls as nurses, but in the 1930s the teaching profession was more appealing. A local woman, Garoinedi Tariowai, herself a grandmother at the time, caught the vision, trained under Dr Vaughan and encouraged girls to become nurses. Girls they trained provided the medical services in the Milne Bay district for many years.

During the 1930s, Arthur Swinfield, a qualified naval architect, enjoyed similar success with the young men he trained and employed in his boatshed. Kwato-built boats became famous and Arthur claims Kwato men are the best boat builders in the world.

In 1985 when Bob Halstead wanted to build a dive/cruise boat he rang Arthur in Sydney, to discuss the building of M.V. Telita. Arthur assured him it could be done in Milne Bay just as they did in the 1930s. Arthur drew the plans and was involved in the whole project. One of his most skilled craftsmen, Joe Lebasi, had trained many young men in the trade. His son Douglas, with white hair and beard, found the old skills returning as he grasped the familiar tools in the building of Telita. The grand old days of Kwato boat building returned for those brief months and live on for all who holiday on that fine vessel.

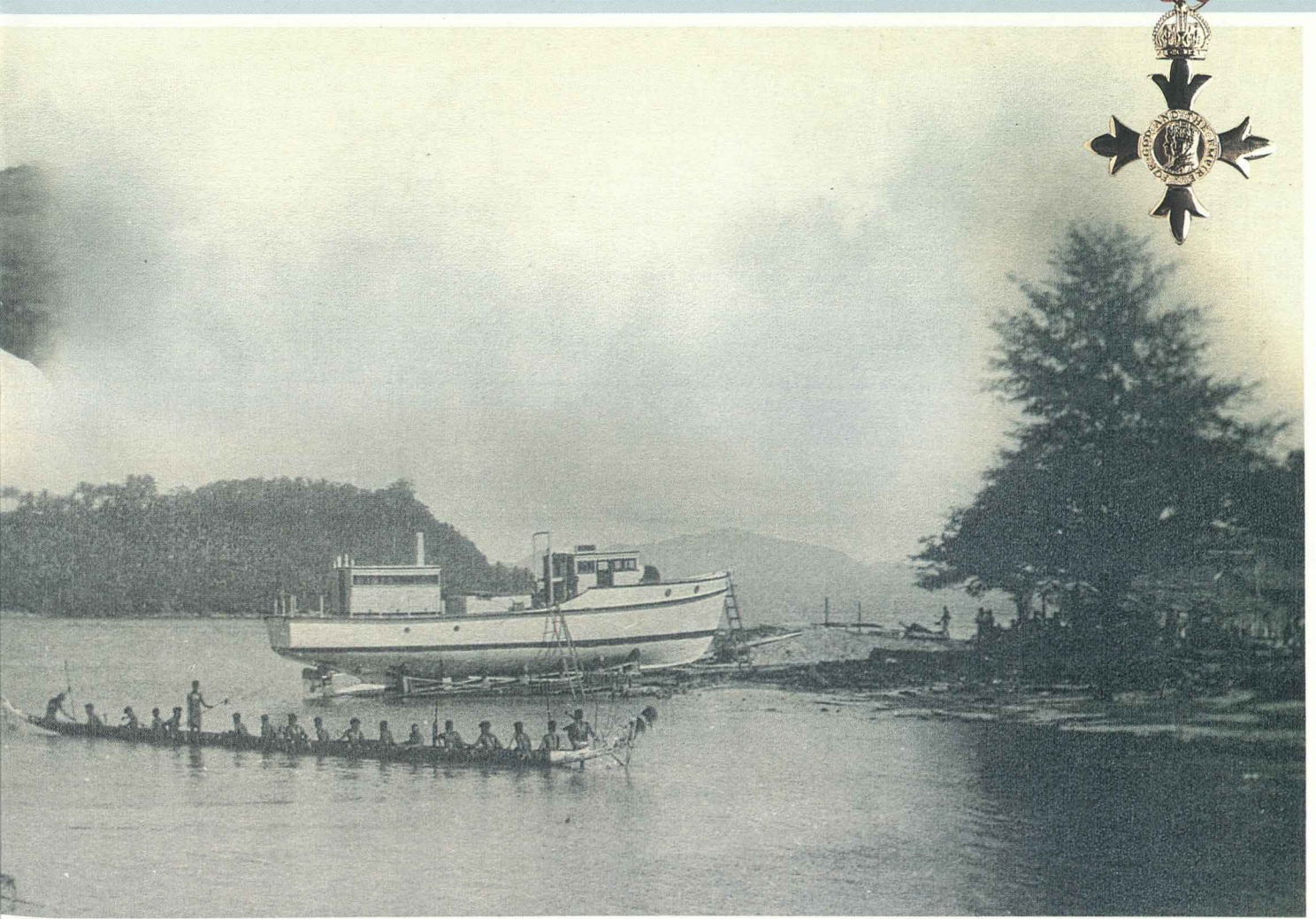
It was an emotional moment for me, returning just 49 years since I left Kwato, the place of my birth. Our evacuation in 1942 was hurried due to the Japanese invasion. A Sunderland flying boat designed to carry 50 people, staggered off the choppy



waters of the Strait after an eight mile run, with over 80 expatriate women and children aboard, bound for Cairns. I was just three at the time. My father and mother had been contemporaries of those making the pilgrimage on the Arona.

It meant a lot to me to stand beneath the coconut trees, with the white coral sand crunching under my feet and see the concrete foundations of what had been the workshop, the rusty shafting and bearings, creeper covered blocks of old diesels and other bits of machinery lying in the grass. It was on that small island my father spent the larger part of his missionary career. It was to Kwato that he had taken his bride. Stories on which we as children had grown up came alive.

Top Dr Berkeley Vaughan, Milne Bay health services founder. **centre** Garoinedi Tariowai. **bottom** Sir Cecil Abel had a life-long association with Kwato island.



IN THIS GARDEN LIE
THE FOUNDER OF KWATO
AND HIS WIFE, AND
SOME OF THE PIONEERS.

THEY BELIEVED
THAT GOD HAD A PLAN
FOR PAPUA, AND
LIVED TO BRING IT ABOUT.

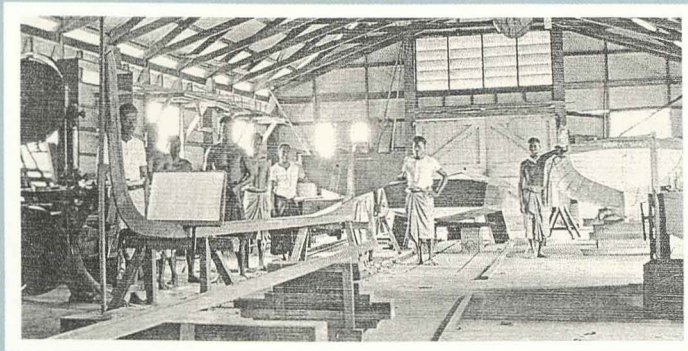
CHARLES W. ABEL
1862 - 1930
BEATRICE ABEL
1869 - 1939
MARGARET PARKIN
1865 - 1939
TIRAKA ANDEREA
- 1939
PHYLLIS ABEL
1898 - 1955
RUSSELL W. ABEL
1905 - 1965

Above Launching of Kwato II, June, 1938. *left* Memorial plaques in pioneers cemetery. *right* M.V. Arona brought the former missionaries. *below* Kwato's mill and boatshed, and technical school near the wharf.



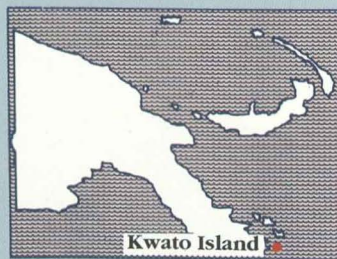


Kwato was made self-supporting by extensive coconut plantations, the community's own craft to transport the copra, the sale of boats, commercial work on others' vessels, and the sale of furniture and other products. This was one of Charles Abel's aims. The Kwato-owned plantations in Milne Bay are still in production today.

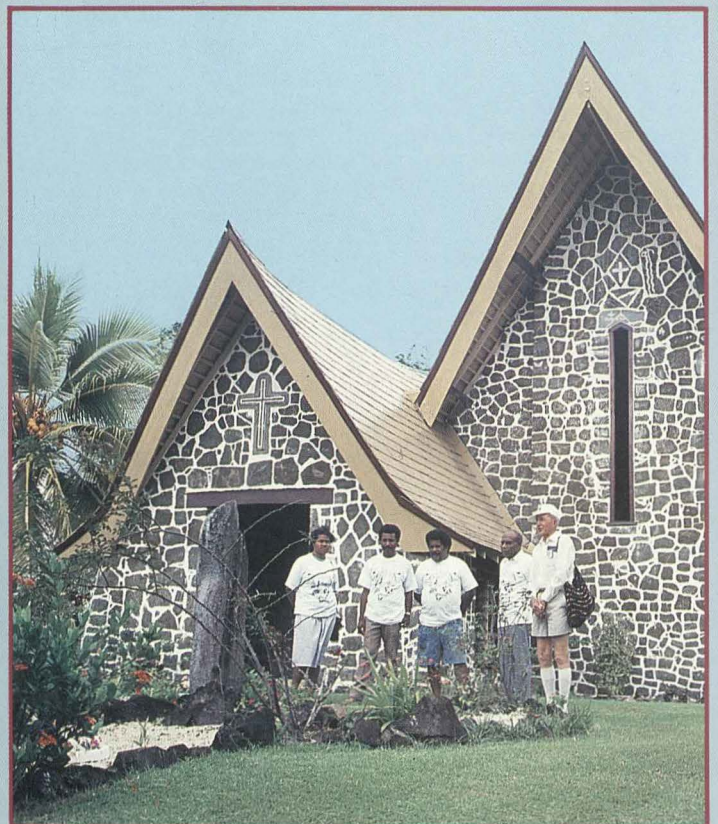


Above Douglas Lebasi reminisces with visitors in boatshed. left The old boatshed in the 1930s. below Kwato Church built of local stone.

On a small plateau, at the highest point of the boomerang shaped island, stands the church. Its distinctive sway-backed ridge was modelled on the roofs of traditional Suau long houses. Arthur Beavis and Cecil Abel designed the church, which Arthur and his men built in 1930, from local dark grey granite blasted out of the hillside, and shingles split close to the site. The stone was shaped by hand so that each piece fitted into the mosaic of the walls. Mortar was made by burning coral in a large kiln. The floor too is of the same coral lime and cement. The clean, moss-free surface of the stone and whiteness of the mortar give the impression it may have been built just recently instead of over 60 years ago.



Outside the western end of the church a small garden evokes an attitude of reverence. A stone obelisk bears stainless steel plaques on which are engraved the names of the founders Charles and Beatrice Abel, her cousin Miss Parkin, and their daughter Phyllis and son Russell. They lie buried in that tiny garden framed by coconut trees against a backdrop of the China Strait, with the blue hills of the mainland rising steeply from it.





WE KNOW PNG...
BECAUSE WE ARE PNG.

We know...
Our People...
Our Resources...
Our Businesses....

We are...
KILA BOWRING
Being expert in our
field is your bonus.

**MOST PEOPLE
CALL IT PARADISE...
WE CALL IT OUR
COUNTRY.**



Kila Bowring Insurances Pty Ltd

A MEMBER OF THE MARSH & McLENNAN GROUP
INTERNATIONAL INSURANCE & RISK MANAGEMENT CONSULTANTS
Ph: 21 1811 Fax: 21 1324

POWER TO THE PEOPLE



Photograph courtesy of CHM Supersound Studios, Port Moresby.
Powered by a F. G. Wilson 60Kva Generator.

F.G. Wilson are world leaders in the design
and manufacture of quality diesel generator sets
from 5Kva to 5000Kva.



Contact your local agent Morgan Equipment for Sales, Parts and Service.



A member of the **UMW** Group of Companies

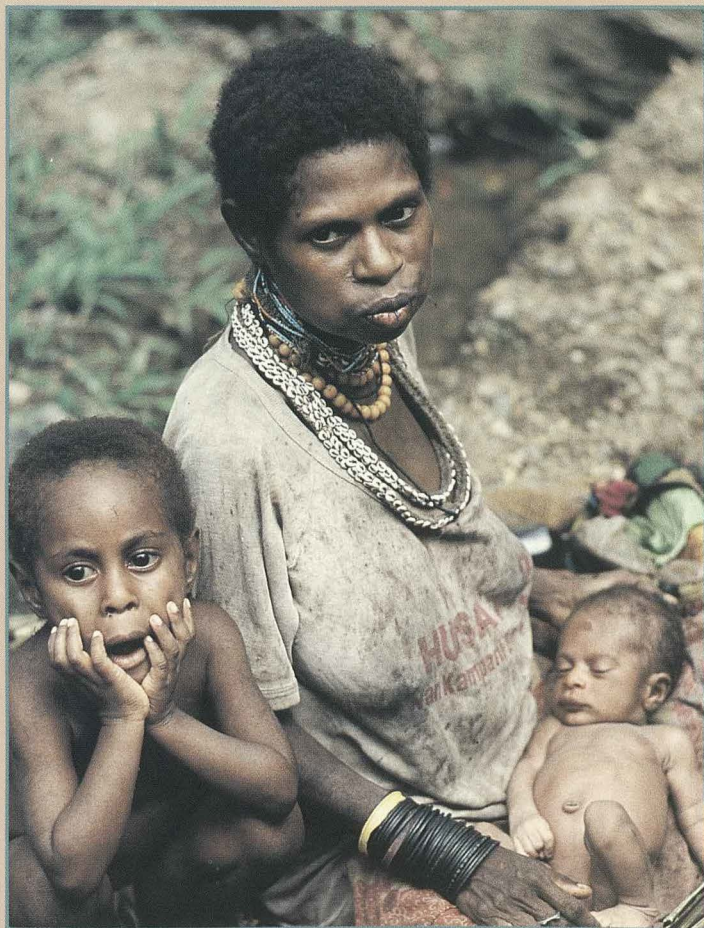
MORGAN EQUIPMENT PTY. LTD.

LAE Air Corps Road
PORT MORESBY Morea Toba Road
RABAUL Airport Road
HONIARA Ranadi Industrial Estate

Phone: 42 2444
Phone: 25 5766
Phone: 92 2488
Phone: 677 30171

AIRSTRIP for the HAGAHAI

Story by Vic Levi
Photographs by Stefan Moore



Members of the recently discovered Hagahai tribe watched intently as the small bulldozer ripped through the chocolate-colored topsoil on the cloud-shrouded hill deep in the Papua New Guinea Highlands.

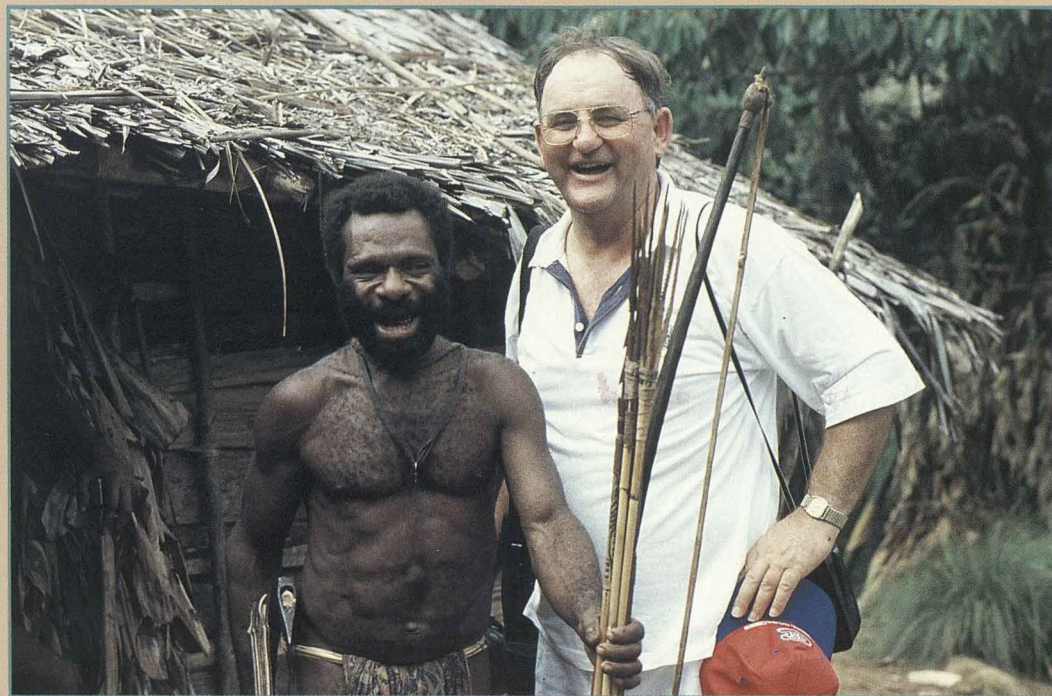
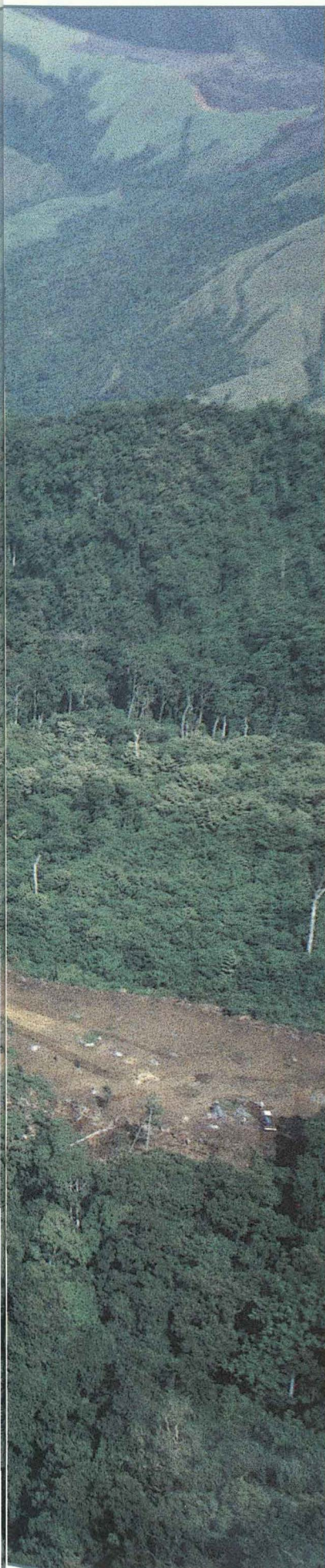
They observed carefully the action of a chainsaw slicing through logs which would have dulled the sharpest of their axes.

It was a dramatic juxtaposition of the 20th Century and the Stone Age which reached a climax a day or two later when explosives experts from Placer Pacific's nearby Porgera gold mine arrived by helicopter to set off 500 charges on the same rocky hillside.

The scene was the tiny village of Manganamau, 50 kilometres from Mount Hagen.

The project is the





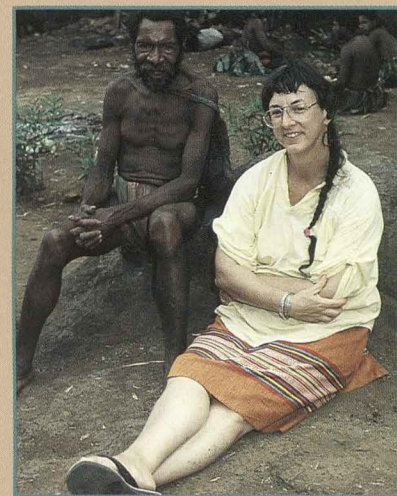
construction of an airstrip for the Hagahai by a group of Rotarians from country New South Wales, Australia. The airstrip is nearing completion with the help of the PNG Government, the Australian Government's International Development Assistance Bureau and many other organisations.

Rotarians from District 9670, in New South Wales, Australia, have been working on the project for nearly four years. Four teams, the most recent late last year, have worked on the airstrip, due for completion later this year.

Photographer Stefan Moore and I were lucky enough to spend a week with one of those teams on this extraordinary project of goodwill and improvisation.

The Rotarians, their bulldozer, its fuel, the chainsaw and other equipment were all flown into the jungle site by the Hevilift company based at Mount Hagen.

The airstrip project is very much the brainchild of American medical anthropologist, Dr Carol Jenkins, who works for the PNG Institute of Medical Research.



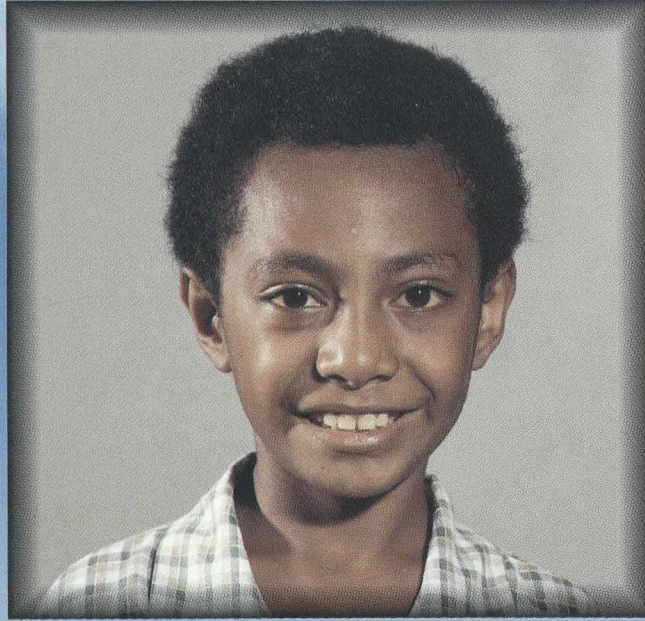
Facing page Hagahais' airstrip takes shape. **above** Author with tribesman. **right** Dr Carol Jenkins with tribal elder, Naromo. **below** Rotarians visit work on the airstrip.



FUTURE AIRLINE PILOT

Layton Roroi

“9 year old Layton is determined to one day be a Captain with our Nations Airline.”



“At the PNGBC, we are interested in Layton's future and the future of all young Papua New Guineans.”



for us tomorrow



Her dream is to provide regular medical assistance for the Hagahai via the airstrip and to give them a chance to establish their own cash economy through a coffee plantation. She believes the airstrip will also help them set up a permanent school for the children of the tribe.

When the tribe was first found by Baptist missionaries in 1983, the infant mortality rate was one in three. Today, vaccinations with 20th Century drugs and the help of Rotary and Dr Jenkins have reduced that rate to one in 10.

Three months after the Hagahais' first contact with the missionaries, Dr Jenkins walked into the mountain wilderness with a government patrol officer to meet the tribe. It was Carol Jenkins who named the tribe, a name which roughly translated means 'you guys'.

For more than nine years she has continued her crusade to assist the tribe with the help of the PNG and Australian governments, National Geographic and Rotary.

Also helping her to lead the Hagahai into the 20th Century is tribal elder Naromo, a tiny, wiry man in his late 60s with a crinkly, greying beard and amazing strength when wielding a crowbar.

The tribe has been under threat from malaria, tuberculosis, pneumonia and epilepsy. Over recent

years disease, snake bite and the lack of drugs like Dilantin (for the tribe's six epileptics) have taken an alarming toll.

These days the tribe gathers around Manganamau, alongside the airstrip site, and at Yilu, a village three hours' walk away.

A grass covered mountain

Above Fire and tractor blade clear tree stumps from the airstrip. **below, left** Hagahai woman tends family piglet. **below** Rotarian Lloyd Adams and Naromo work on a chain saw.





at one end of the Manganamau valley will present the biggest obstacle for landing aircraft once the airstrip is built. At the other end are towering mountains swathed in low cloud.

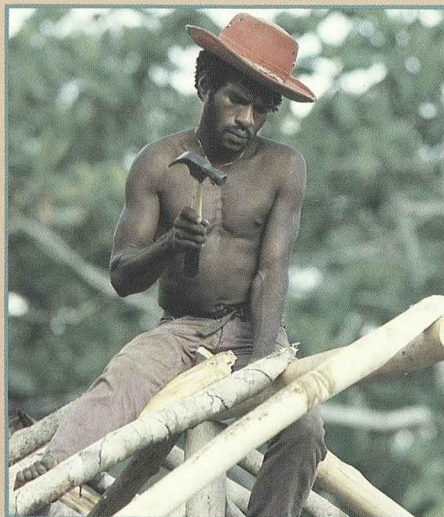
Manganamau consists of half a dozen bamboo and grass thatched huts. Twenty metres away is a swiftly flowing mountain stream of cool, sweet tasting water.

Long lengths of large bamboo split in halves make up an open pipeline and natural drinking tap among the rocks in the centre of the stream. Ten metres downstream, a similar pipeline provides a refreshing shower.

The Hagahais' biggest treat is a crystal clear swimming hole, a tortuous half-hour walk through the heat of the jungle but worth the struggle.

The Hagahais still know nothing of the cash economy. A box of matches is more valuable than white man's gold: one match can save a tribesman from painstaking fire lighting using Stone Age bamboo

Top The Hagahai, gathered for a mumu (feast). **right** Clansman helps build a tractor garage. **below** The clan's fresh water supply.



implements resembling drills. Salt, too, is another sought-after gift.

Routines of life and death are still dictated by the sunrise, the sweltering heat at midday and the relieving, serene, coolness of nightfall.

It is hoped that the airstrip will bring with it greater autonomy and a guarantee of better health and education for the Hagahai. Ironically, I was brought closer to an understanding of the tribe's plight by a dose of malaria which I picked up when I paid them a visit.

But it is still my fervent wish to one day land on that airstrip among the mountains to see Naromo and his people prospering.





*THE BEER OF PARADISE...
SOUTH PACIFIC EXPORT LAGER*

Budget has Papua New Guinea fully covered

From corner to corner

And all locations in between



Budget
rent a car

Central Reservation - Port Moresby
Phone: (675) 25 4111 Fax: (675) 25 7853

Story and photographs by Paul Phelan



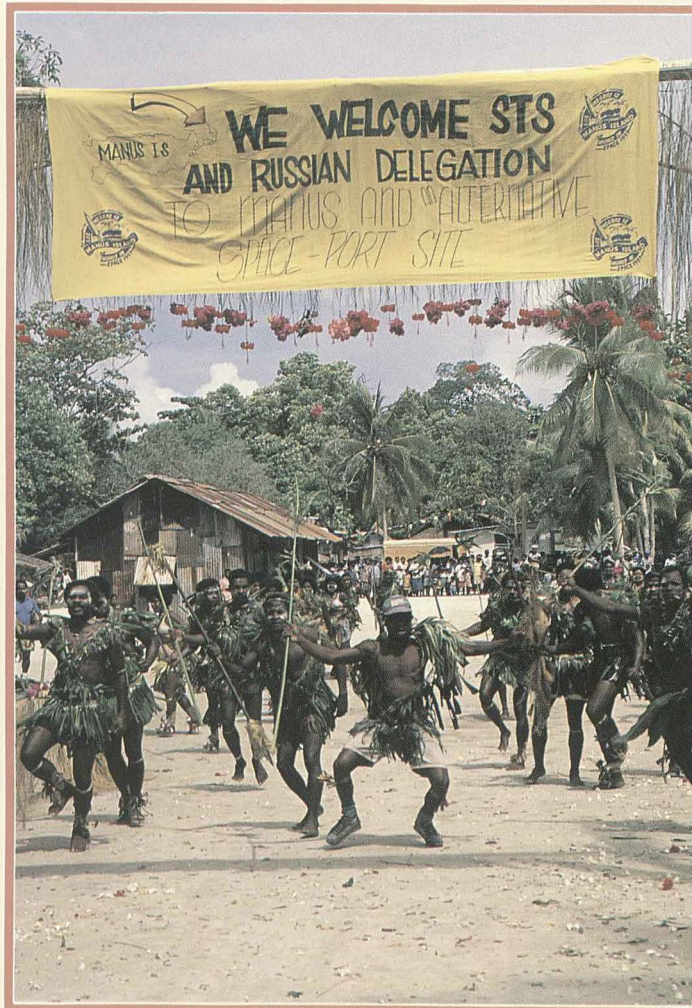
S P A C E P O R T
PNG



Two Papua New Guinea communities are in friendly competition to become part of a space-age project which will bring the nation new opportunities in the world of high technology.

Possible sites at Emirau and Manus Islands, near the Equator, are both being considered for the world's first fully commercial spaceport complex to launch the big satellites on which modern telephone and radio communications depend. In November 1993, directors of Australian firm Space Transportation Systems (STS) and executives of major construction enterprises accompanied 12 of Russia's top space industry officials to both islands, to begin technical evaluations which will help them decide on their preferred site. The scheme has the full support of the PNG Government and regional Governments.

The leaders of both communities gave the visitors a warm welcome, saying the land which the spaceport would occupy on either island is damaged by



Top Australian Space Transportation Systems team, Russian and PNG Government officials at Manus Island. above Manus Islanders greet the spaceport evaluation teams. right Russian Proton rocket.

concrete and bitumen left over from World War Two and is of little use for agriculture.

Unlike many other satellites, most communications satellites revolve around the earth's axis in 'geostationary orbit' at the same speed as Earth itself, about 36,000km above the Equator, staying in the same position over the surface.

The plan is to use Russia's reliable and proven Proton rockets, formerly reserved for military satellite launches, but now available for peaceful purposes.

Less rocket fuel is needed at the equator to launch the same payload, because of the 'slingshot' effect of the earth's rotation (for the

same reasons as mud flies faster from the tyre than from the hub cap). This means a rocket can carry heavier loads if launched close to the Equator than from other sites, in many cases allowing two satellites to be launched by a rocket which could otherwise only launch one. By the time the spaceport is operating, planned improvements will take the Proton's payload to over six tonnes, or three satellites from one launch.

Another Proton advantage is that with 216 launches over 30 years, its reliability, its main competitive advantage, has been proven at 96 per cent against an industry average of some 80 per cent, which means much lower

insurance rates for Proton users.

Because very few equatorial sites are suitable, more than half of all geostationary satellites are now launched by a French government organisation from a site in French Guiana. The communications companies who want to launch satellites are hoping for a more competitive launch system.

Customers for the commercial launch service are expected to come from the USA, Australia, and several Asian countries which are now developing their own satellites.

Apart from geostationary orbiting satellites, a PNG site will be able to launch satellites into 'polar' and low-earth orbits.

The spaceport will need about as much land as a major international airport. It will also need a seaport, a runway capable of handling heavy jet transports, duplicated power stations, worker accommodation, and a reliable water supply. The more technical part of the construction will include dual Proton launch pads; a special plant to produce oxygen and nitrogen gases for fuel; isolated and secure fuel storage facilities; specialised buildings and equipment for the assembly and testing of the rockets and their satellite payloads; another building where payload and launcher are 'integrated'; transport / erector vehicles to position the assembled rockets (weighing 700 tonnes); and a control complex for rocket tracking and guidance.



Top Officials explain teams' visit to Emirau Islanders. left Manus Island village near a proposed spaceport site.



The project will cost about K800 million. That may be partly funded by the Russians, and by selling land to service industries, probably including tourism facilities.

The Government expects huge benefits for PNG, including improved public health facilities and many employment and training opportunities that will stem not only from the spaceport's construction and operation, but from the supporting industries which spring up around such high-technology projects. Other benefits will be schools, and improved roads, power and water supplies, all of which will also benefit neighboring communities.

The satellite launching service is planned to start in early 1998, with an average of five launches a year over the first 10 years of operation.

STS will be undertaking a detailed environmental impact study under guidelines provided by the Government. In consultation with the National and Provincial Governments, the group will prepare an environmental management

plan to address community and Government concerns.

A comprehensive consultation program will involve social surveys, public meetings, and discussions with interest groups, including the local communities and traditional custodians.

Funded by STS, the Russian visit was the project's exploratory stage. A six month drawing stage, also funded by STS, has now started as a result of a comprehensive agreement

the parties signed after their visit. That will be followed by the technical stage; the actual construction.

One of the visiting Russians was Vyacheslav Dukov, former deputy head of the Russian department responsible for spaceports. Mr Dukov explains the planning process in these terms: "The countdown starts with the signing of the agreement, and all the major steps will now be defined. A preference for Manus or Emirau will be established,

and the final result may revolve around what conditions can be negotiated with landowners."

STS director John Thomas says the group has funding guarantees in place to take the project to first launch if necessary: "The only thing left is to find the final location, and to sign the agreement with the landowners."

Top Part of Manus Island from the air, ideally located near the Equator. below Team members discuss merits of different proposed sites.





We have it all...

From the centre of Port Moresby to the tropical paradise of Rabaul, Travelodge Papua New Guinea has a hotel to suit your stay.

...business



Port Moresby
Travelodge

Situated in the Port Moresby business district, the **Port Moresby Travelodge** offers first class accommodation with stunning ocean views and well appointed rooms. With relaxing restaurants and bars, the Port Moresby Travelodge is a popular meeting place for business and social activities. The hotels conference and function facilities cater for meetings, seminars and banquets from 5 to 500 people.

...pleasure



The Islander
Travelodge

Just 10 minutes from the Port Moresby city centre the **Islander Travelodge** is an ideal business/resort destination. With 12 acres of tropical gardens, the whole family can enjoy our many recreational activities, swimming, tennis, walking, squash, gymnasium, restaurants, not to mention our full conference and function facilities for the business or social event. Come and be pampered by our friendly staff in our tropical oasis.

...recreation



Rabaul
Travelodge

Get away and discover The **Rabaul Travelodge**, offering international accommodation on this island paradise. You can indulge yourself with fishing and diving or explore the nearby volcano, markets, war relics and caves, or simply relax and enjoy the stunning view of Simpson Harbour. The hotel has business facilities and first class dining, so why not mix business with pleasure and enjoy this remarkable paradise.

Port Moresby Travelodge
Cnr. Hunter & Douglas Sts.
Po Box 1661, Port Moresby

Ph: (675) 21 2266
Fax: (675) 21 7534

Rabaul Travelodge
Mango Avenue, Rabaul.
Po Box 449, Rabaul, ENB.

Ph: (675) 92 2111
Fax: (675) 92 2104

The Islander Travelodge
Waigani Drive, Hohola
Po Box 1981, Boroko.

Ph: (675) 25 5955
Fax: (675) 25 0837

TOYOTA
GENUINE PARTS

TOYOTA
QUALITY SERVICE

Let us treat your Car like a Baby...

At Ela Motors we believe in giving your car
the very best in both Genuine Parts and
Quality Service. Don't trust your
Baby with anything less...

Ela Motors

NATIONWIDE

TOYOTA
FILTER, FUEL

23303-34072

1